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Sub-Saharan Africa Report

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COUNTRY REPORTEDLY EXTREMELY WELL EQUIPPED WITH LATEST SOVIET WEAPONS

Johannesburg SUNDAY TIMES in English 20 Jan 85 p 9

 $\overline{/A}$ rticle by Ray Josep<u>h</u> $\overline{/}$

 $\overline{/\mathrm{Text/}}$ Angola has become the first country outside the Warsaw pact to be equipped with the deadly Soviet Sam-9 ground-to-air missile.

Recently it also received some of Russia's most advanced jet fighters.

The country which is so well known to South African soldiers as a battle-ground against Swapo has the most powerful air force and the most sophisticated collection of Sams and radar south of Syria, says an authoritative journal.

And last year the country is estimated to have received Soviet military aid worth 10 000-million roubles (nearly R5000-million based on the official Soviet sterling to rouble exchange rate)—as well as 30 000 Cuban troops and between 4 000 and 5 000 East German and Soviet "advisers" employed mainly on the maintenance of electronic equipment and security.

These startling facts, some of which have never been publicly revealed before, are contained in the latest edition of the prestigious Flight International magazine published in London yesterday.

In it the Chief of the SAAF, Lieut-General Denis Earp, says that the "threat build-up has been very fast, particularly since the peace accords with Angola started."

In a major seven-page cover story on South Africa's air power the journal takes one of the most comprehensive yet looks at the SAAF--and the massive array of weaponry it faces.

Intelligence

The article, headlined "Life at 50 feet," is by the journal's defence editor, Mike Gaines, who was given a rare insight in the operations of the SADF during a recent visit to South Africa.

From the detail and facts and figures that Gaines has included in his report, it seems certain that he was allowed access to large amounts of confidential intelligence that the SADF has collected in Namibia and Angola.

And in a full-page editorial headlined "Ostracism or Ostrich-ism," the journal concludes that South Africa, far from becoming subservient by the enforcement of the United Nations arms embargo, has vitalised its industries and stiffened its defence.

It argues that "trade sanctions and arms embargoes simply do not work."

"On the other hand, the cost to the Western world of its severed connections with South Africa has been considerable," and the West had lost the use of its main southern regions base by the scrapping of the Simonstown agreement in 1976.

Gaines, in his article, stresses the importance of South Africa in protecting the West's oil and food routes.

"In the event of war, with the Mediterranean blocked at Gibralter or Suez (or both), the West's supply routes will not only be the traditional North Atlantic, but also the South Atlantic and Indian Ocean.

"Oil from the Middle East will have to pass that way as it does now and, without a strong defence force, a handful of Soviet submarines would be able to cut that line unchallenged.

"The SAAF's Shackletons have already been retired, leaving no long-range capability off the Cape of Good Hope and easing the undetected passage of Soviet submarines between the two oceans."

It argues that the strategic importance of a Western-aligned South Africa "cannot be overstated" and adds that "Soviet influence has been steadily creeping down through the African continent in the last decade..."

"Stability in the region also depends on South Africa being equipped to form an integral arm of the West's maritime protection forces."

Antipathy

South Africa was prepared to join a Western alliance and would "willingly participate in Western military activity if it were allowed to do so," the editorial argues.

The West's "antipathy" towards its internal policies could be said to be justifiable if it were "doing the black people of South Africa the slightest amount of good.

"The contrary is the case. An isolated South Africa is free to pursue its own policies, whereas the West might find that it could influence South Africa more by talking to and dealing with it."

The fact that South Africa and Angola had been fighting an undeclared war for the last 15 years was well known.

"Less well known is the nature of that war. It is mainly a ground war, but it is not a case of a few Angolans armed with a few firearms against the might of the SADF.

"The Angolans are extremely well equipped with the latest Soviet equipment.

Too Old

According to Gaines, South Africa's main problem is to replace old equipment.

"The present fixed-wing front line force of Buccaneers, Canberras, Mirage llls and Mirage Fls backed by Impala lls is getting too old."

General Earp told Gaines: "Provision of follow-up fighter aircraft is my greatest worry.

"The threat build-up has been very fast, particularly since the peace accord with Angola."

CSO: 3400/592

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DIFFICULT SITUATION IN COUNTRY ACCORDING TO ICRC

Port Elizabeth WEEKEND POST in English 5 Jan 85 p 3

/Text/ Windhoek--As the civil war in Angola intensifies, the situation of over 200 000 displaced refugees is "becoming worse and worse," according to the International Committee of the Red Cross (ICRC).

In the December 1984 issue of the ICRC Bulletin, the committee says a recent survey done by the Red Cross indicates a steady deterioration in the country.

"The ICRC has been stockpiling supplies, although badly hampered by logistical difficulties.

"The only practical way to move staff and goods from the coast to the worst-affected areas is by air, since the railway is repeatedly out of action and the roads are in disrepair and unsafe."

The scale of relief operations in Angola is clearly indicated by the sheer size of the Red Cross operation in Angola—one of the biggest in Africa after countries like Ethiopia.

The ICRC staff in Angola presently numbers, according to the bulletin, 23 pilots, 21 medical delegates, 11 ordinary delegates, 10 relief workers and 32 supporting posts.

By contrast, the ICRC's Namibia office has only two delegates and a hand-ful of office workers.

At present, "Some 1 000 tons of stores are being delivered per month and this was to be increased to up to 2 000 tons by the end of the year (1984)."

Many regions are inacessible because of military activity and actions by Unita rebels, and because of the dispersed nature of the population, it is impossible to establish refugee camps, the bulletin said.

Their aircraft are making up to three flights each day and a total of 3 200 malnourished children are being fed in the central areas of Huambo province.

The hazards of the Red Cross operation are illustrated in an accompanying article describing the flying operations they carry out.

Recently, landmines were uncovered near the airfield used by the ICRC at Katchiungo in Huambo province, and a woman seeking relief help lost a leg when she detonated an anti-personnel mine there.

Since the incident, the committee has appointed a security official to check the airfield area for mines daily.

BRIEFS

UNITA CLAIMS--Lisbon--Unita claims it attacked Luena, the capital of Moxico province this week, killing 136 government and Cuban troops, and sabotaged Luanda's power system last Friday, embarrassing a ruling MPLA conference. Dr Jonas Savimbi's guerilla movement yesterday said it struck Cuban and Angolan military installations in Luena on the Benguela railway with heavy firepower on Monday. Unita said its forces inflicted many injuries, captured considerable war material and destroyed munitions depots. Twenty-seven Cuban and 109 Angolan soldiers died in the attack on Luena, formerly Luso, the statement said. No rebel casualties were mentioned. It said Unita "special commandos" sabotaged 10 pylons and two transformers carrying power from the Mabubas hydro-electric power scheme on Friday, blacking out parts of Luanda. It claimed the blackout cut short a MPLA conference which closed with a call for increased military efforts against "imperialist aggression." /Text//Johannesburg THE STAR in English 24 Jan 85 p 5/

SOUTH AFRICAN TRANSPORTATION SYSTEM ALLEGEDLY FAVORED

Johannesburg SUNDAY TIMES in English 3 Feb 85 p 4

[Article by Ciaran Ryan]

[Text] The Road Transportation Board has been accused of refusing permits to hauliers from neighbouring states and South African carriers allege harassment by the Railway Police.

They claim that a campaign is being waged against them to protect SA Transport Services' market share.

Maduo Maoto, Botswana's Secretary for Transport, says: "The Customs Union is supposed to allow unimpeded movement of goods between member countries, but this does not happen in practice.

"We believe the main reason is that SA Railways wants to protect its market share. We are not saying that we want the same number of permits as South African hauliers, but we expect some reciprocity. Swaziland and Lesotho are in a similar position to us."

Rare

South African hauliers have in the past been allowed to transport through Botswana cargo for Zaire, Zambia and Malawi. But permits for Botswana hauliers to pick up loads in South Africa are rarely granted, it is alleged.

Goods destined for Botswana must be carried by a South African haulier or Sats, resulting in a drain on Botswana's foreign currency.

Botswana has allegedly stopped issuing new permits to South African hauliers in retaliation and is said to be considering a reduction of existing permits.

Hauliers predict that South African exports will suffer because goods carried by road are usually required at short notice—and Sats is unable to respond. Pilferage on the railways is said to be much higher than in road transport.

Zimbabwe bars foreign trucks, so most northbound traffic from SA passes through Botswana.

Mr Maoto says transport companies in Botswana have been refused permits by SA, except occasionally where the railway no longer operates, such as from Zeerust and Potgietersrus.

"Exporters based in Cape Town do not want to use the railway for half the journey and then switch to trucks. This causes delays and increases the risk of breakages."

Agreement

Ronnie Meyer, deputy Director-General of SA's Department of Transport, replies: "We are not discriminating against Botswana and other neighbouring states. If they are unhappy, they should make approaches to the Road Transportation Board and state their case. We have been trying to formulate an agreement with them for some time."

Mr Meyer says aggrieved hauliers may object to decisions on permits. Objections by Sats are not always upheld.

SA road hauliers also claim harassment by Sats, saying the Railway Police are instructed to check permits of northbound trucks in an attempt to curb pirate operators. But legitimate operators are inconvenienced.

An estimated 20 trucks and their cargoes were seized near the Free State town of Villiers recently and impounded by Sats.

Urgent

One international haulier told Business Times: "They are trying to intimidate our suppliers so that the business will go to the railways. We are losing exports.

"I had an urgent order for 6 000 tons of water pipes for Malawi and I was refused a permit on the grounds that the railways should transport the goods. But the delay in using rail was such that the supplier cancelled the order.

"The Minister of Transport is supposed to look after the interests of all transporters, but he is only interested in the railways."

Johan Hugo, public relations officer with South African Transport Services, denied the charges of harassment.

COUNTRY WARNED AGAINST PROVIDING SANCTUARY FOR TERRORISTS

Durban THE DAILY NEWS in English 5 Feb 85 p 1

[Text] Cape Town: The Bophuthatswana Government has warned Botswana that unless acts of "terror and infiltration" do not stop, its security forces will launch hot pursuit operations.

This has been backed up by a strongly worded message from South Africa, warning that "this situation cannot continue."

In a statement issued today Foreign Minister Mr Pik Botha said there had been direct contact between the Botswana and Bophuthatswana governments after an increase in the number of contacts involving Bophuthatswana security forces "with terrorists infiltrating through to South Africa."

Since September 1984 seven terrorists had been arrested in Bophuthatswana; two had escaped across the border and three had died.

The Botswana Government has since claimed that it is facing an invasion by South African and Bophuthatswana forces but Mr Botha says the basis of the claims are not clear to him.

All that had happened was that the Bophuthatswana Government had expressed its concern as well as the SA Government.

Bophuthatswana told Botswana that it had information "that a number of terrorists were using Botswana as a sanctuary from pursuit by security forces and that if acts of terror and infiltration did not cease the government of Bophuthatswana would have no other alternative than to engage in hot pursuit against them."

In his message to Bophutswana, Mr Botha said that peace and stability in Southern Africa could not be maintained if terrorists were harboured in a neighbouring sovereign state.

cso: 3400/661

FARMERS ABANDONING DROUGHT STRICKEN CAPE BORDER FARMS

Johannesburg SUNDAY EXPRESS in English 20 Jan 85 p 2

/Article by Peter Wallington/

/Text/ Farmers on the Cape/Botswana border are abandoning their farms and leaving behind thousands of labourers and their families without work or food.

A white farmer in the drought-stricken area, Mr Tom Carroll, has said unless something is done the situation could become "another Ethiopia."

He is so moved by the plight of the black people there he has called for their evacuation from the area.

Deserted

The Sunday Express visited the Vergelee community on the Botswana border this week. More than a third of the farmhouses scattered over the barren veld were deserted.

Mr Carroll, 73, said thousands of black women, children and old people depended on farmers for their food. As crops failed and farmers left, workers were laid off and the situation became more desperate.

He said some farmers had to sell assets just to pay the interest on their overdrafts while others had locked their doors and gone to look for work.

"The only other asset we have are our farms—but who would want to buy them?"

Black people drifted from one farm to another, setting up plastic shelters in the veld. "We pay them a few rand to do odd jobs but they con't come for the money, they come for food for their children," he said.

Young men had gone to work at mines or border industries, but often did not send money to their families. Mr Carroll said if nothing else could be done the families should join them there before the winter.

Mr Carroll, who has farmed at Vergelee for 20 years, said three years of drought and crop failure, the high cost of cattle feed and the price of imported maize had crippled the farmers.

A spokesman for the North West Co-operative in Lichtenburg said the area normally produced 20% of the country's maize, groundnuts, sunflower and sorghum. Last year it produced 2%.

The average rainfall of 355mm had fallen to 127mm for the last three years.

Mr Carroll said according to the co-operative annual reports, farmers owed the co-op R70-million in 1980. In 1984 it was R190-million.

The president of the South African Agricultural Union, Mr Kobus Jooste, said this week farmers' debts had reached nearly R10-billion.

Mr Carroll believed many farmers were facing financial disaster but were too proud to admit it.

Thin

"My neighbour can't afford to pay his labourers at the end of the month, has no crop to sell and his cattle are too thin for slaughter. How can he feed anyone?"

One farmer who had been in Vergelee for 52 years left a year ago for East London. Three labourers were still on the farm, but did not know if the owner would return.

Mr Carroll said many of the farmers who had gone were young. Only three of the 15 farmers along the Molopo river road were in their 40s. Everyone else was above 60.

He said most of the older farmers grew enough maize for themselves and their labourers. But with the drought they could not do this let alone provide for thousands of jobless people.

This week's rains have come too late to save the maize and groundnuts planted last year. But farmers were planting more maize seed this week, and Mr Carroll said if there was more rain and the winter frost was late, they would have some food for the winter.

Feared

He said he feared for the future of the community. "Subsistence farmers are struggling to exist and the producing farmers are being wiped out."

Although many of the younger farmers had found work elsewhere, he doubted whether the older farmers would be as lucky. "So we have to stay and see what happens," he said.

cso: 3400/605

BRIEFS

BOMB PARTICIPANTS SEEK ASYLUM—The office of the president said today that the two men who on Wednesday morning escaped the bomb attack in Gaborone have decided to leave the country and seek asylum elsewhere. The office of the president has also revealed the name of the other man who was staying with Mr Nat Serache. He is (Gabriel Pule), a South African national. In a news release, the office of the president said Mr (Pule) entered Botswana from South Africa on Tuesday, 12 February, the day before the bomb incident, for the purpose of seeking political asylum. The release says that both Mr Serache and Mr (Pule) have decided to leave Botswana in view of the serious threat to their lives. The office of the president has expressed great concern of the Botswana Government at the attempt on the lives of the two refugees and strongly condemned those responsible for what it termed the callous and treacherous act. Meanwhile, police investigations into the bomb incident have not so far produced any tangible results. The investigations are continuing. [Text] [Gaborone Domestic Service in English 1610 GMT 15 Feb 85]

ILLEGAL BORDER CROSSINGS—Bulawayo—At least 365 people were caught trying to cross the Botswana-Zimbabwe border illegally last year, a police spokes—man said in Bulawayo. He said illegal border crossings had increased be—cause the security fence separating the two countries had been broken.

"People tend to use any possible means to leave the country, but usually they sneak across on foot." Relations between the security authorities of the two countries were good, with Botswana immigration authorities sometimes handing over people found crossing the border illegally, he said. Most illegal crossings were made to seek employment or buy food, but sometimes criminals were caught trying to escape arrest. [Text] [Johannesburg THE CITIZEN in English 14 Feb 85 p 15]

BURKINA COMMISSION ON TOURE'S ACCUSATION

18.00

AB281758 Ouagadougou Domestic Service in French 1900 GMT 27 Feb 85

[Excerpts] Following Soumane Toure's allegation, at the seventh session of the People's Revolutionary Tribunal [TPR] in Ouagadougou, that billions were being embezzled under the National Council of the Revolution [CNR], a national investigation commission was set up on 26 January 1985. Yesterday, the six-man commission published its findings at the former National Assembly Building in the presence of delegates of the Revolutionary Defense Committees [CDR] of the administration, the secondary schools, the university, and the garrison of Ouagadougou. Here is the full report the findings of which are read by Jean-Mathisa (Djiou), chairman of the investigation commission:

[Begin (Djiou) recording] Declarations of the National Investigation Commission on the accusation leveled by Soumane Toure against the CNR at the seventh session of the Bobo Dioulasso TPR sitting in Ouagadougou from 3 to 10 January 1985. Following the general assembly held on 26 January 1985 by the CDR's of the administrative services and traders, a national investigation committee was set up to examine the accusation which Soumane Toure leveled against the CNR during the session of the TPR in Ouagadougou. The National Investigation Commission comprises CDR militants of Oue, Bourtinge, and Kadiogo.

According to Soumane Toure, since its advent on 4 August 1983, the CNR has embezzled funds to the tune of billions from the National Social Security Fund [CNSS]. Comrades, what are the facts? At the request of the CNR, and with the clear understanding of the concept of embezzlement as defined in the fundamental statutes of the fund, we will together try to find out the political aspects of Soumane Toure's accusation.

Payments made by the CNSS at the request of the CNR since the advent of the Democratic and Popular Revolution [RDP]: by confidential letter No 84-0081/CNR/PRES/CONF dated 28 February 1984, the President of the Faso, who pointed out the vital nature of certain development projects, asked the CNSS to provide funds for these projects. The request was submitted to the CNSS management board on which Soumane Toure sits as the representative of the workers.

The SIB [expansion unknown] projects which remain the permanent concern of the CNR, require 3,287,666,892 CFA francs as follows: a subvention of 1 billion CFA francs for the Sourou SIB; 1 billion CFA worth of participation

in the capital of the Burkinable Construction and Management Company [Socogib]; a repayable loan to the state amounting to 1,287,666,892 CFA francs for the rehabilitation of the Bobo Dioulasso airport.

To throw light on the payments made by the CNSS at the request of the CNR, we met with Comrades Tare Moumouni, chairman of the board of directors; Simon Ouedraogo, outgoing executive manager; and Herve Nikiema, financial manager. He also went to the various banking institutions dealing with the CNSS of the actual verification of the accounting documents, account statements, and other relevant documents. Contrary to the accusations made by Soumane Toure, the documents show that up till now, payments made by the CNSS at the request of the CNR amount to 590 million CFA francs with the following breakdown:

--Participation in the capital of Socogib as of 11 October 1984: transfer of 200 million from CNSS Account No 36.28.002 J-95.

--On 11 October 1984: transfer of 100 million francs from CNSS Account No 405.011.195 K

--On 15 October 1984, a third transfer amounting to 200 million CFA francs from the BSIA [expansion unknown] Account No 60.001/01/63, all to Account No 405.010.041 W opened for subscriptions to the capital of Socogib.

As you can see for yourselves, comrades, the total sum paid out by the CNSS amounts to 500 million CFA francs out of the 1 billion requested.

Concerning the two other projects, no payments have been traced in the accounting records of the fund. It will be observed that within the framework of the comprehensive housing policy, economic operators and other economic institutions of the state were called upon to finance social housing schemes, such as Cite An II [a district of Ouagadougou]. The CNSS was to provide funding for 10 cottages to the tune of 5 million per unit, that is a total of 50 million CFA france.

Since the development plan of the CNR is not at variance with the spirit of Article 33 of the Social Security Code, we refute with scorn the charges of any alleged embezzlement and we ask Soumane Toure to look elsewhere for weak points in the CNR. For projects which the fund has begun to finance, namely Socogib, (ULVA), Cite An 2, we remind Soumane Toure that apart from the Cite An 2, the financial participation made by the fund in the other projects make the National Social Security Fund a coproprietor of these enterprises. If Soumane Toure contests the development plan proposed by the CNR, it is his most absolute right, but he should not use any trade union cover to impede the revolutionary process. We believe that his hostility toward the CNR today, as compared with his attitude toward the former leaders of the country, can easily be explained through a logical and objective political analysis. In any case, Soumane Toure will not have much time to wait, for any proletarian political struggle sheds itself of its impurities in its development process.

At the end of the investigations by this National Investigating Commission on the legal and accounting aspects, it clearly appears that first, as far as embezzlement is concerned, there is none. The CNR operated within the legal framework of the regulations governing the social security fund because the 2d paragraph of Article 33 of the Social Security Code stipulates that the financial policy of the fund should, as far as possible, help in creating employment for social progress and the economic development of the nation.

Lastly, with the creation of the (ULVA), a bank whose activities are essentially geared toward the development of the masses of the people, the Council of Ministers issued a decree fixing the participation of the CNSS in the bank at 160 million, a quarter of which has already been paid out by the fund, that is 40 million CFA francs.

To sum up, it will be said that at the time Soumane Toure made his statement on the radio, and even right now, only 590 million francs have been paid by the CNSS at the request of the CNR. [end recording].

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CSO: 3419/293

FINANCIAL BACKERS MEET TO DISCUSS ROAD PROJECT

AB271753 Ouagadougou Domestic Service in French 1300 GMT 27 Feb 85

[Text] Financial backers for the Djibo-Dori-Falagountou road project have been meeting since this morning to discuss how to finance it. The meeting, which is taking place in the conference hall of the Ministry of Equipment, has brought together representatives of the FRG, Yugoslavia, the African Development Bank, UNDP, the United Nations Capital Development Fund, the United Nations Sahelian Office [UNSO], and of the Office for the Implementation of UN Projects. The Djibo-Dori-Falagountou 237-kilometer-long road, which will help to free the Sahelian region of our country from its land-locked situation, will be a modern earth road [en terre moderne].

In his address at the opening of the meeting, Equipment Minister Comrade Jean Leonard Compaore said that the meeting was to take stock of the progress made so far concerning the discussions on the project and to get from the financial backers the pledge for implementing it. The meeting follows many others held beginning October 1984 concerning the same project. Comrade Compaore helped that at the end of the meeting our friends, the financial backers, would come out with concrete suggestions for the construction of the road.

Martin (Baoma), UNSO representative and deputy chairman of the deliberations, spoke on behalf of all the financial backers and said that their objective was to construct the entire Djibo-Dori-Falagountou road. The meeting is expected to end tomorrow afternoon.

CSO: 3419/293

BRIEFS

AUTOMATIC PISTOLS PURCHASED--A military delegation led by the assistant budget director and personnel from the Armed Forces Ministry made a visit to Italy in November. Cameroon has recently purchased automatic pistols from the Beretta firm. $\sqrt{\text{Text}/}$ $\sqrt{\text{Paris AFRICAN DEFENCE}}$ in English Jan 85 p 11/

ORDER FOR TUG BOAT—The National Port Authority has placed an order with the Ateliers et Chantiers de la Manche (ACM) shipyards in Dieppe (France) for a high seas tug boat. Designed for use by the port of Douala, this unit is registered under the number 1329, and is to be delivered on October 5, 1985. It measures 29.35m in overall length (26.80m at the floating line), 9m moulded breadth, 4.70m moulded depth, 4.50m rear draught and 3.70m hull depth. The power plant consists of a Diesel/SACM AGO diesel engine, type 195V12RVR, with an adjustable exhaust nozzle. It outputs 2000hp at 1350 rpm. Its fixed point traction is 25 tons, and its test speed is 12.7 knots. The vessel will be equippped with a 30-ton tow hook and firefighting equipment. /Text//Paris AFRICAN DEFENCE in English Jan 85 p 11/

cso: 3400/600

DJIBOUTI

BRIEFS

ASSAULT RIFLES FROM AUSTRIA--The national security forces recently received 100 AUG 5.56mm assault rifles and 100 sharpshooter rifles both made by Steyr Daimler Puch (Austria). $/\overline{\text{Text}/}$ /Paris AFRICAN DEFENCE in English Jan 85 p 17/

LEFT SPEAKS OUT IN TWISTED DIALECTIC DESPITE CENSORSHIP

Media Commentary

/London TALKING DRUMS in English Vol 2, No 18, 4 Feb 85 pp 14-15

/Text/ A classic case of media management is being played in Ghana, conducted by Mrs Valeri Sackey who signs herself as the head of Information at the Castle. It has taken her very considerable talents to try to hide from the Ghanaian public the big parting of ways between Flight-Lieutenant J.J. Rawlings and many of his friends over a most fundamental matter.

There are a few points that are not in dispute. A statement was read at the Accra Community Centre to the Press last week, which was quite critical of Flt-Lt Rawlings and what was seen as the direction of the "December 31 process." Critical though the statement was, that was not what alarmed the Castle as much as the signatories to the statement and more particularly, the identity of the person who read the statement. For it was read by Mr Fui Tsikata, Senior lecturer in Law at the University of Ghana.

Mr Fui Tsikata happens to be one of a triumvirate of Tsikatas who have been most passionate in their support of Flt-Lt Rawlings and his various undertakings in the past almost four years. The other two being Mr Tsatsu Tsikata, younger brother of Fui and also a Senior lecturer in Law at Legon, which duo are usually credited with lending the 'intellectual prop' to the revolution. The third being their big cousin, ex-Capt Kodjo Tsikata, Special Advisor to the PNDC and Head of Security who is normally credited with having utilised his guile and some say, ruthlessness, to keep the PNDC in power.

The last thing that the Castle wanted to admit was that there was such a serious conflict within the ranks of the inner circle of the revolution. Seeing that the Tsikatas are known to move together it would be difficult for anybody to believe that Mr Fui Tsikata would launch such a major attack on PNDC policy without support from Mr Tsatsu Tsikata and Capt Kodjo Tsikata.

Mrs Sackey therefore went into action and took the most unusual step of writing to the press houses to stop the publication of the story. The People's Daily Graphic of January 24, 1985 did carry the story, however,

even though everybody but a seer would have been hard put to it recognising the publication as the same statement as the one read by Mr Fui Tsikata at the Accra Community Centre.

Luckily there were other media people at the press conference, over whom Mrs Sackey has no control and the AFP--the French News Agency, for example, filed a story and The Times of London carried a short version. We publish below, the Times story and the People's Daily Graphic published version. When we get a full copy of the original statement, we shall publish it for the benefit of our readers.

It might be pointed out that Mr Fui Tsikata who read the statement was not mentioned at all in the Graphic story. But they did mention Father Joop Visser, a Dutch Roman Catholic priest—the good Father came to fame in 1987/79 for his work in his parish in Madina, a suburb of Accra. He is said to believe in liberation theology and was very concerned about the plight of the poor in his parish. He identified himself very much with the first coup of Flt—Lt Rawlings in June 1979. After the hand over to ex-President Limann his brand of theology was found by the authorities to be irritating and he was deported by Limann for interfering in the internal affairs of Ghana. When Flt—Lt Rawlings seized power a second time, he asked Father Visser to come back and he has, until now, been one of the strongest supporters of the Flight—Lieutenant.

The other named signatory, Mr Karikari, was one of the earliest people to jump on the bandwagon of the December 31 coup. He was awarded for his enthusiasm by being appointed a Director-General of Ghana Broadcasting Corporation. In September last year, however, he was asked to go back to the University of Ghana, whence he came, "to strengthen the teaching staff" in one of the moves that was widely interpreted as clipping the wings of the revolutionaries and bringing in traditionalists or, to employ Mr G. Adali Morty's words, "bringing in sanity."

I shall leave any comments on the contents of Mr Fui Tsikata's statement till later when more information is available about those who constitute the 'disaffected ones' (the first stage to becoming dissidents, I am told).

In the meantime, it is possibly worthwhile to quote what can only be very strange words attributed to Dr Kwasi Botchway, the Secretary for Finance and Economic Planning, who joined the revolution, was one of the leaders of the left wing on the University of Ghana and used to be very scathing about IMF, World Bank and other such organisations. He was quoted as saying: "I have been criticised by elements on the left, and in the same vein, I have been praised by right-wing elements for abandoning Marxism. Leaving aside the personal and subjective elements in this question, the real question is what should a Marxist do, faced with the real situation in Ghana, the monetary and fiscal situation, the condition of the various sectors of the economy, the objective of feeding the people, the living conditions of the masses of the people, not from the point of view of any ideal conditions existing in one's head, but the real conditions on the ground.

I think the concern that is expressed by these Left elements comes from a very fundamental misunderstanding of Marxism, which I understand to be a guide to scientific practice. The matter is not helped any by dogmatic positions or ideal solutions that ignore or run away from the real situation on the ground..."

There seems to be a lot of excitement among the 'left-wing thinkers' that finally something was being done about what they saw as a betrayal of the revolution. A few weeks ago an unsigned statement arrived in the offices of Talking Drums from a group callec United Revolutionary Front of Ghana (URF). The statement in tone sounded very much like the one by Mr Fui Tsikata, it also accused Flt-Lt Rawlings of having betrayed the December 31 revolution.

It sounds like the left-wing is striking back.

TIMES Article

London TALKING DRUMS in English Vol 2, No 18, 4 Feb 85 p 14

/Text/ Accra (AFP)--The Ghanaian Leader, Flight-Lieutenant Jerry Rawlings, has been attacked by former left-wing supporters for his recent political and economic policies.

A statement read here by Mr Fui Tsikata, a law lecturer and aide to Mr Rawlings, was especially critical of the increasing role of the World Bank and International Monetary Fund in determining national economic policy.

In the strongest public reaction so far to the Rawlings recovery programme, the statement said the Government has abandoned the ideals of the revolution by following the directives of the IMF and World Bank.

Last month the bank agreed to lend Ghana \$415 million (£360 million), after the Government instituted IMF-backed measures, including three unpopular devaluations, and price increases of consumer goods.

PEOPLE'S DAILY GRAPHIC Article

London TALKING DRUMS in English Vol 2, No 18, 4 Feb 85 p 14

/Text/ In a statement released yesterday by representatives of the New Democratic Movement, some members of the Catholic Graduates for Action and some individuals, including Father Joop Visser, concern was expressed at the lack of public reaction to certain government decisions of last December.

The signatories indicated their misgivings about the apparent demoralisation of CDRs brought about by consistent attacks on their weaknesses, the penetration of their ranks by powerful social groups of the old order, and the manner in which their restructuring was announced.

The rejoicing of forces opposed to the true aims of the Revolution was, they said, proof that this decision, instead of bringing about qualitative improvement, is damaging to the basic organs of participatory democracy.

The statement warned of the consolidation of forces of reaction, and expressed concern about a number of recent changes which, in their view, take decision—making opportunities away from the people.

Economic measures were criticised as being too traditional and designed to please the IMF and World Bank.

"We should rather be disturbed and cautious where imperialist economic interests are happy with our economic measures," the statement said, adding that too much of our foreign exchange is being committed to the servicing of debts.

United Revolutionary Front Statement

London TALKING DRUMS in English Vol 2, No 18, 4 Feb 85 pp 15-16

/Text/ Today marks the third anniversary of the military coup of 31st December 1981, a coup which inaugurated the bitterest and most intense social struggles in Ghana's history.

It has been a period overy important changes. Above all, this period has witnessed the most dramatic, the most amazing and indeed the most shameless 'U-turn' of any government not only in Ghana's history, but in all post-independence African history. Never before has a government so totally turned its back on its origins, initial objectives and social base. The nearest contemporary parallel in this respect is the regime of General Doe in Liberia.

Yet Rawlings' sell-out remains unique, partly because of the sophistication with which it has been carried; for, even today whilst the true character of the regime has become crystal clear to all Ghanaian workers and to keen observers of events in Ghana, it is still possible to find a number of genuinely confused progressives alongside the left-wing opportunisits who continue to proclaim the so-called progressive character of the regime in Ghana.

Thus, while Rawlings, in his life and death battle against his real enemies, the left-wing in the December 31st process, found it essential to present himself and his faction to the workers and international progressive circles as the truly revolutionary one, confronted by 'counter-revolutionaries' hiding within the 'revolution' (the charges of 'ultra-leftism,' 'anarchism,' 'moving faster than the process,' etc, did not emerge until much later, when it became clear that the masses had begun to discern the real truth, and Rawlings' own pretentions to revolution were now very much openly in question). But on the other hand, his petty-bourgeois rivals also seized upon this attempt to project the image of the 'true revolutionary' by Rawlings

to say they were the only safe representatives of bourgeois rule in Ghana. Rawlings, they argued, should not be trusted by the outside (imperialist) world. This apparent congruence of interests between the two rival petty-bourgeois factions merely reflects the fact that both want to achieve essentially the same goal—a neo-colonialist capitalist economy fully integrated into the world capitalist economic system as envisaged by the International Monetary (IMF)/World Bank.

But who are the real enemies of the Rawlings regime? They have been, and will remain, the working class and its allies as well as the progressive organisations who refused to join in the deceitful, fraudulent and cynical betrayal of the interests of the Ghanaian masses. To reiterate, the struggle was between those who wanted to advance the interests of the Ghanaian working people along a truly revolutionary path and those against this; those who wanted to create the necessary conditions for the mases to fulfil their aspirations and those who wanted to mortgage Ghana's economy to Imperialism under the IMF supervision.

It is against this background that we have to understand how a PNDC, brought to power on the crest of a popular wave and revolutionary fervour, is implementing the most reactionary, destructive economic programme in Ghana's history. It is also why since the crisis of October-November 1982 when the revolutionary forces suffered some reverses, the working class have suffered a series of political setbacks, and whilst the rhetoric of the regime still proclaims revolution as its goal, it has reacted to every perceived threat; every crisis, every new situation by lurching further to the right, and further from the working people.

Thus in analysing events in Ghana, it is important to identify the PNDC of 1982 (PNDC 1), which in itself was neither a democratically run body, nor one capable of providing genuine revolutionary leadership, but at least included some genuine revolutionary forces, and PNDC II which emerged as a result of the crisis in which the revolutionary aspect of December 31st was abandoned. No wonder the PNDC II has emerged as a body dominated by the most ferocious enemies of the working people.

The social consequences of the Rawlings betrayal are immediately obvious: the destruction of all social services on a scale never dreamt of even by the previous darlings, boys of the IMF—the National Liberation Council (NLC)—Busia administrations. The educational policy of the PNDC II is: 'EDUCATION, A PRIVILEGE, NOT A RIGHT.' As the IMF tightens its grip over the economy more and more firmly, thanks to PNDC II, the poor must say goodbye to ever seeing their children educated (only the very rich can enjoy this 'privilege'). Whilst Kwesi Botchwey and his like are loosening their belts...

UNITED REVOLUTIONARY FRONT LAMBASTED

London TALKING DRUMS in English Vol 2 No 20, 18 Feb 85 pp 9-10

[Article by Ntim Gyakari]

[Text]

To celebrate the 3rd anniversary of the military rebellion in Ghana on 31st December 1981, an organisation that calls itself United Revolutionary Front (URF) issued a statement and circulated it.

This statement was supposed to have been signed by one of the many pseudo-revolutionaries Nyeya Yen "on behalf of the External Secretariat, London, 31st December 1981". What this means is not comprehensible.

The so-called URF is supposed to be an amalgamation of the June Fourth Movement and People's Revolutionary League of Ghana. These were front organisations that were mobilised by Rawlings, Tsikatas, Chris Bukari Atim, Akwasi Adu, and their ilk to give a semblence of national support for the political farce now bedevilling mother Ghana.

Under the cloak of fighting corruption, inefficiency, world imperialism and lack-lustre political drama of President Limann's era, Rawlings' ego was bolstered by these front organisations.

In the statement the so-called URF among other matters, condemned and disdained Rawlings for falling out with his colleagues; for assuming the role of supreme dictator. Rawlings is chastised for embarking on disastrous economic policies and betraying their ideology.

The so-called URF members, who wore expensive jeans while parading themselves before the whole world as a poverty-stricken lot determined to banish poverty in Ghana and join the

crusade of the World revolutionary forces, exhibited every kind of immorality both in their public and private lives. They rode in the best cars available in the land. They displayed arrogance. They lived in posh bungalows, and had orders to eat and sleep in the best hotels. As a result of their action incompetence has become the order of the day and no respect for any authority or elders has been officially encouraged.

Members of the so-called URF were armed to the teeth and there is the possibility that they shed innocent blood and maimed many other defenceless Ghanaians.

Now that some of the members of the so-called URF are in exile how do they manage financially, or have they also "ran away to overseas to enjoy their stolen monies in foreign banks?"

They could see now the terror they helped Rawlings to instil into the Ghanaian populace, the humiliation and wanton destruction of human lives, not to mention the harassment which forced many Ghanaians to leave the country that belongs to them.

On the economic analysis contained in the URF statement, the question to be answered by them is: what could they do when they had the chance? They naively and ignorantly added to the penury of Ghanaians. The policy PNDC pursued when it foisted itself on Ghanaians has been one of economic bankruptcy.

It was during this period that realisation dawned upon Rawlings that

like old Robin Hood he has been leading brigands. But the economic isolation had already taken place and among the measures the rebels could take was to search frantically for loans regardless of long term implications for the whole country. The pamphleteers and sloganeers like the lot of the URF members were shown the exit.

The economy is in shambles with devaluation now nearly 1,000%, I do not know how Ghanaians are going to live that down. Rawlings is not capable of spearheading any economic recovery, because he does not understand how this could be done. He has instead created divisions and bitterness.

PNDC has brought the fragile economy of Ghana on its knees and no average Ghanaian family which has not got a member outside Ghana to supplement the family's income can survive.

On the ideological front, why do the members of the so-called URF style themselves socialists? Their activities while in various political offices could not make them lay any claim to

socialism. They are the type of "ideologues" who give socialism a bad name. Their activities border on "neo anarchist tactics". Socialism, one of the finest political philosophies should not be allowed to be debased by the members of the so-called URF.

For instance, Nkrumaism is a fullyfledged socialist ideology tailored for Ghana's and Africa's revolutions. But these members of the so-called URF spurned it. They only believed in confrontational politics. They could not set up any socialist structure except the WDC's and PDC's which were fashioned on Libyan-style political

objectives.

The attempt to differentiate between PNDC I and PNDC II does not hold water. There is no difference. The leadership remains incipiently the same and the rebellion of 31st December 1981 is still an on-going process. A new Ghana needs to be born that will allow politics to be conducted without acrimony and rancour and make possible the restoration of peace, stability, hard work, respect for authority, elders and other intrinsic values of the Ghanaian society.

3400/682 CSO:

LEGAL PRACTITIONER CRITICIZES BAR ASSOCIATION

AB272004 Accra Domestic Service in English 1800 GMT 27 Feb 85

[Text] A legal practitioner in Sekondi, Mr James Mensah, has said the unrealistic stand and the intransigence of the Ghana Bar Association has made it to lose credibility in the eyes of its members and the public. This is contained in a reply to a letter from the association inviting him to appear before a disciplinary committee to explain why he should not be suspended from the association for violating a resolution forbidding its members in private practice from defending accused persons before the public tribunals. Mr Mensah said the association has been talking about legal aid for many years now but has failed to come up with any proposals. He wondered how the association can honestly and genuinely talk about legal aid and at the same time maintain a ban on appearance at the tribunals.

Mr Mensah argued that the constitution of the association does not state that violation of the association's resolution is an offense, neither does it give power of suspension. He said that if the association can pass a resolution to forbid its members to comply with a law of the land because it disagrees with the government, then its members have an equal right to refuse to comply with the association's resolution on tribunals if they disagree with it.

COMMANDER EXPLAINS ABSORPTION OF BORDER GUARDS

AB281025 Accra Domestic Service in English 0700 GMT 28 Feb 85

[Excerpt] The commander of the 2d Infantry Brigade, Colonel Saidu Ayuma, has denied that border guards were absorbed into the military as a punitive measures against the guardsmen. He said it was an attempt to bring all land military operations under one army commander. Col Ayuma therefore described the rumors that the border guards were disbanded or dissolved because of ineffectiveness as an attempt to sow seeds of discord among units of the armed forces.

Col Ayuma was addressing a news conference in Tua as part of an administrative tour of military establishments under his command. He explained that the exercise is also aimed at displaying military prominence and the roles and responsibilities of the military at the country's borders as a deterrence against external aggression. He announced that the airborne corps at Tamale is to control the borders in the Norther, Upper-East, and Upper-West Regions while the 4th Battalion of infantry takes over the border post in the Ashanti Region and the 3d Battalion is for that of the Brong-Ahafo Region.

ARMED FORCES TO TAKE OVER BORDER GUARD DUTY

Paris AFRICAN DEFENCE in English Jan 85 p 10

/Text/ The armed forces are to take over the duties of border guards to increase efficiency and help combat smuggling and external aggression, the army's second infantry brigade commander, Colonel Seydou Ayouma, said December 3; smuggling across the borders with Togo, Ivory Coast and Burkina Faso is on the increase.

Colonel Ayouma said the merger is in line with current restructuring exercise within the armed forces. He also announced that soon the 3rd Battalion at Suyani will be made responsible for the training of cadet corps in second cycle institutions in the area.

BRIEFS

MILITARY UNIFORMS MISUSED--The Ministry of Defence has repeated its warning to the public that "it is an offence for anyone to sell or buy any military uniform and equipment in the country." Any person who contravened the law (NLCD 177) commits a criminal offence and will face the full rigours of the law. A statement from the Ministry of Information said yesterday that the Defence Ministry had expressed concern at the rate at which thieves and armed robbers were masquerading as military personnel. It attributed this state of affairs to the unlawful possession of such uniforms and equipment by unauthorized persons and organizations. Despite repeated warnings, it said the public had conveniently closed their eyes and ears to the law proscribing the use of military uniforms and equipment. The law reminded members of the Armed Forces of Ghana that "the misuse and/or misapplication of military uniforms and/or accoutrements is an offence punishable by /Accra GHANIAN TIMES in English 30 Jan 85 military discipline." /Text/ p 1/

TRADE WITH CZECH GROWING--The Czechoslovak Ambassador to Ghana, Mr Ladislav Sobhr, has said that import and export trade between Ghana and Czechoslovakia has progressed steadily over the past 27 years. Speaking to newsmen in Accra, the Ambassador said his country would step up co-operation with Ghana in the fields of commerce and technology. So far, he said, Czechoslovakia had supplied local firms with a number of capital goods, including machinery and spare parts for its industrialization programme. He mentioned the ceramics factory at Saltpond, the tannery project at Aveyime, the Bonsa Tyre Factory and the Kumasi Shoe Factory as some of the industries which had received Czechoslovakia machinery and equipment. Mr Sobhr said in return, his country imported cocoa beans and manganese ore from Ghana.

MALIANS FLEE DROUGHT CONDITIONS—Fifteen Malian refugees have arrived in Bolgatanga [northern Ghana] on their way to Accra after 11 days of walking. A Ghana News Agency report quotes a Malian representative as having said that many more of the refugees had arrived earlier in Paga. He said they are being sent to Accra where the Malian Embassy would complete negotiations with the Saudi Arabian Embassy for the resettlement of some of them. In an interview, most of the refugees said they have been compelled to leave their country because of 3 years of acute drought which has hindered farming and left them with no livelihood. They said under such deplorable conditions, they are compelled to leave their country to look for food elsewhere. [Text] [Accra Domestic Service in English 1300 GMT 23 Feb 85]

AIRFORCE OPERATES DOMESTIC FLIGHTS—The Ghana Air Force will from Monday, January 28, begin a daily domestic passenger flight between Tamale, Kumasi and Accra. The exercise, codenamed "Operation Air Link," will be conducted in conjunction with the Ghana Airways and will be run on the same basis as the domestic flight of the national airline. Two Fokker 27 aircraft of the Air Force will be in use with only one flying at a time. The operational base of the exercise will be Tamale. There will be occasional flights to Sunyani and also Takoradi when the rehabilitation of the Takoradi runway is completed. The aircraft will depart from Tamale at 0800 and arrive in Accra at 1030 each day. /Text/ /Accra PEOPLE'S DAILY GRAPHIC in English 26 Jan 85 pp 4-5/

ETHIOPIAN CHILDREN WELCOME—Ghana has offered to play host to a number of famine—stricken children from Ethiopia subject to a favourable response from the Ethiopian government. A report in "The Mirror" said that the decision was arrived at during a meeting summoned at the instance of Flt Lt Jerry Rawlings, to discuss ways of helping Ethiopian drought victims. The Ethiopian ambassador to Ghana has since been requested to find out the opinion of his government on the offer. A task force has already been formed to receive the Ethiopian children or consider other alternatives, if the offer was not accepted by the Ethiopian Government. If the Ethiopian Government accepted the offer, Ethiopian children and their parents would be brought into both urban and rural areas where chiefs would be expected to take direct responsibility for their well-being. This mode of hosting, it went on, was considered better than creating refugee camps which would only result in their isolation from the rest of the community. /Excerpt//London TALKING DRUMS in English 28 Jan 85 p 23/

JAPANESE LOAN--The PNDC is to receive two grants totalling 210m cedis from Japan. The agreements to this effect have been signed in Accra. The first grant of 145m cedis is for the rehabilitation of the Ghana Broadcasting Corporation while the remaining 65m cedis will be spent to improve maternal and child nutrition programmes. /Text/ /London TALKING DRUMS in English 28 Jan 85 p 23/

NEW AFRICAN TRADE UNION--A new international trade union organization, Pan-African Health Trade Union, is to be formed under the auspices of the Organization of African Trade Union Unity [OATUU]. The nucleus of the union is being formed by the Health Workers Union of Ghana and the Medical and Health Workers Union of Nigeria. A communique issued in Accra said this was the outcome of a series of consultations between the two industrial unions in Lagos last month. The communique stressed the need to establish common objectives at the subregional, continental, and international levels without subordinating each other's interests and aims. It called for regular exchange of information between member unions in industrial relations and trade unionism. The communique proposed that the continental health organization should aim at keeping members informed about trends in member countries and how they affect health service employees as well as changes in the patterns of service available. Member unions, they said, should also endeavor to work together to assist in defending each other's interest and promote good understanding and close cooperation among members. The communique said the establishment of the continental health body would enable medical and health trade unions in Africa to have a say in the deliberations of the WHO through OATUU. [Text] [Accra Domestic Service in English 0700 GMT 7 Feb 85 AB]

SAUDI FUND MAY ASSIST—The Vice—Chairman of the Saudi Fund for Development, Dr Saleh Hawan Humaidan, who led a three—man team to the country on a one-week duty tour flew back home yesterday. In a pre-departure interview, Mr Humaidan, who is the director of the Fund's General and Technical Department, told newsmen that the team held a number of discussions with PNDC Secretaries and top government officials. He said the team identified health, fuel and power, transport and communications, education, agriculture and roads and highways as sectors in which the Fund could offer assistance.

/By Gillian Heathcote/ /Text/ /Accra GHANAIAN TIMES in English 1 Feb 85

PASSPORT MISUSES—The National Investigations Committee has submitted a number of reports to the PNDC Secretariat. One of the reports concerns the use of forged passports and visas to clear imported second—hand vehicles at the ports. The report notes that PNDC Law 27 was made in order to control imports of second—hand vehicles and provides certain concessions for Ghanaians who have been residing abroad. A statement issued in Accra yesterday by the PNDC secretariat said investigations had shown that passports and visas were being used to create the impression that the owners are entitled to these concessions. Three such cases have so far been uncovered, the statement said. /Excerpt/ /Accra GHANAIAN TIMES in English 31 Jan 85 pp 1, 3/

BRIEFS

FRIENDSHIP, COOPERATION TREATY WITH EGYPT--The Egyptian Minister of State for Foreign Affairs, Butrus Ghali has ended his visit to the country. The visit ended with the signing of a friendship and cooperation treaty as well as an agreement on cultural, scientific and technical cooperation. Mr Butrus Ghali was received in Yamoussoukro by President Felix Houphouet-Boigny, to whom he delivered a message from the Egyptian Head of State, Husni Mubarak. Dr Ghali's visit would also take him to Mali and Senegal. /Text//London TALKING DRUMS in English 28 Jan 85 p 25/

CANADIAN GRANT--In the context of its assistance for development, Canada is to grant the country a total package of 8bn CFA francs. A large part of the money will be devoted to rural development projects. This is the significant outcome of the second session of the Ivorian-Canadian joint commission for bilateral cooperation held in Abidjan from 9th to 11th January under the joint chairmanship of Simeon Ake, Minister of Foreign Affairs, and his Canadian counterpart, Monique Vezina. The principal areas of cooperation are agriculture, transport, health, education, mining, women's conditions, industry and commerce...The two sides also assessed the progress in the implementation of the projects underway and defined guidelines for future projects. The Ivorian delegation also expressed the hope that media exchanges would be increased and cooperation between the Canadian and Ivorian television increased. In that connection, the Canadians recalled the existence of a project in the field of communications for Africa worth 10m US dollars which is designed for communications' experts working in the field of training and development. /Text/ /London TALKING DRUMS in English 28 Jan 85 p 25/

DOE URGED TO LET OPPONENTS HAVE CHANCE

London TALKING DRUMS in English 4 Feb 85 p 4

/Text/

Every passing day, General Samuel Kanyon Doe confirms the anxieties often expressed about his ambitions and how he intends to transform them into reality.

In spite of all indications to the contrary, Gen Doe persists in claiming that he wants to usher in an era of democratic rule in Liberia. Given that democracy is one of those words and concepts open to widely varying forms of interpretation, he is still taking a peculiarly strange way of bringing about democracy in Liberia.

To begin with, he has turned a deaf ear to all arguments that he gives himself too big an advantage by not resigning as Head of State to fight the elections. Having decided to stay on with all the advantages of incumbency, he does not even want to allow the liberty of being treated as a candidate.

It is quite true that many African leaders have a great difficulty separating their own identities from the states they govern, making it impossible for even the mildest forms of criticisms to be made about their actions and personal lifestyles without being accused of subversion and treason.

The truth however remains that Gen Doe cannot really have it both ways — if, as he insists, he wants to be the leader that brings in democratic rule to Liberia, he will have to accept the indignities that come with it. If he says that there will be free and fair elections in his country, he will have to play by the rules, he will have to accept that there are others of his countrymen who disagree with his ideas, who believe that they are better qualified for the position of President of Liberia, he will have to accept that once you have offered yourself as leader, you cannot avoid the scrutiny and criticisms that come with it.

If every time somebody criticises Gen Doe such a person is guilty of causing instability or subversion or trying to ridicule or belittle the presidency, the handicap that the other leadership aspirants already have, will become veritable impossible tasks.

There is, of course, a choice that has always been open to the General dating back to April 1980 when he set himself the task of liberating the Liberian people — he can always decree himself the Head of State as he already is and carry on as such for as long as he pleases. There would not be very much that can be done about that. As he himself has said on occasion, there are two methods of coming to power, you are either voted into power by the people, in which case, you have to listen to them or you put yourself in power in which case you are largely free to listen only to your own conscience.

The ban that has been placed on the United People's Party (UPP) of Mr Gabriel Baccus-Matthews, for example, can only heighten a lot of anxieties and lead to the possible conclusion that anybody or organisation that opposes Gen Doe is not likely to get very far in the campaign.

Electioneering in Africa has a character all its own, some of the peculiarities dictated by the facts of illiteracy, lack of adequate roads and transportation and communication difficulties in general.

The printing of pamphlets and posters becomes an indispensable part of the campaign and can hardly constitute grounds on which a party can be banned.

In much the same way, it is difficult to appreciate the reasons for closing down the 'Daily Observer' once more again. Supposing that the 'Observer' is indeed guilty of all the charges laid against it by the Justice Minister Mr Scott, they hardly constitute grounds for closing down the paper. The most serious of the 'charges' is that the 'Observer' has constituted itself into an opposition to the government or some would say to the party led by Gen Doe. He surely couldn't have hoped to achieve such an aim without some opposition. The existence of an opposition paper — if that is what the 'Observer' was — would be an important ingredient in Gen Doe's plans for free and fair elections.

As for the other reasons given by Mr Scott to justify the closure of the 'Observer', they come as an embarrassment to a government trying to gain credibility. How the 'Observer' places its stories on its pages is a decision that rests solely on the professionals that work on the paper and cannot be decided in the Executive mansion.

If the newspapers were to take Mr Scott's words seriously, even Gen Doe himself might soon find that he will be afflicted with an acute case of over-exposure. They will place his photographs and his words on the front pages everyday, bn the days that he has not uttered any words, they will try to print his dinner table conversation. After a fortnight of it, Gen Doe will likely find that his countrymen would be turned off completely from him. For, too much of everything, even of the best in life, can prove too much.

The 'Observer' has probably, even if unintentionally, been doing Gen Doe a favour by not giving the kind of publicity to the Head of State that Mr Scott would like. Doing out the goodies in bits has always guaranteed a

heightened appetite.

It is not for nothing that the expression is 'fighting for an election', that is the only way 'victory' can be claimed or a 'loser' can be pronounced at the end. If everybody who opposes Gen Doe is not going to be able to 'fight' the election, Gen Doe will soon find that he will not be in a contest. As a professional soldier, such a situation can hardly be to his liking. After all, the stronger the opponent, the more balanced the equipment and manpower at the resources of both sides, the sweeter the victory when it comes. Gen Doe can hardly enjoy his 'victory' when it comes, if he has not fought for it.

Let it not be said that Commander-in-Chief Doe will ever run away from a fight or pick on puny and unworthy

opponents for a fight.

CSO: 3400/597

A WAR .

BRIEFS

MADAGASCAR-BP COAL ACCORD--Mr Tantely Rene Andrainarivo, the minister of industry, energy, and mining, and Mr (Chadwick), general manager of British Petroleum Coal, signed an accord worth \$550 million for research and feasibility studies into coal exploration in the southwest region of Madagascar. This joint venture, which has an annual production goal of 4 to 5 million tons of coal, is based on 51 percent participation by Madagascar and 49 percent participation by British Petroleum Coal, and it will employ a maximum of Malagasy personnel. [Summary] [Antananarivo Domestic Service in French 1030 GMT 17 Feb 85 MB]

CSO: 3419/284

PREFERENTIAL PROMOTIONAL RATES IN SHIPPING DISCUSSED

Blantyre DAILY TIMES in English 7 Feb 85 p 4

[Article by Lance Ngulube]

[Text]

EXPORTERS in Malawi wishing to introduce new products into European markets can now benefit from preferential promotinal rates offered by the major shipping lines serving Europe and Southern Africa, the Malawi Export Promotion Council (MEPC) has announced.

The offer, a release from MEPC says, was made by Mr. N.D. Sempill, chairman of the Europe, South and South East African Conference Lines who led a six-man delegation from his grouping to Malawi to discuss latest developments in the world of shipping recently.

The Conference "can help exporters who have not made headway into the European market by offering promotional rates' and thereby rendering their products more competitive on European markets," the MEPC quotes Mr. Sempill as saying.

INDUSTRY

Among other issues, the delegation came to assure industry in Malawi of the shipping lines' continued interest and commitment to serve this region to the best of their ability, despite the "long lasting world economic recession and the effects of the depressed shipping market."

One of the obvious effects of the depressed shipping market was that it was possible for operators working outside the Conference to charter very cheaply and occasionally to purchase ships at bargain prices and enter into competition with established lines, the delegation leader said.

While this state of competition would naturally augur well for the exporter and importer in Malawi, Mr. Sempill cautioned that "such operators can not cater for the totallity of the trade and have no long-term commitment to provide conti-

nuity of service."

THOUGHT

The delegation left the country some food for thought: when the present Conference fleet comes to the end of its useful life in about 10 years time, will any line or group of lines be prepared to make the long-term commitment required to provide the stable and reliable service which importers and exporters in the sub-continent have come to take for granted?

Mr. Sempill said Southern Africa has been particularly well served over a long number of years with a regular and stable shipping service provided by member lines of the Conference.

"As with any Conference service, there is a continuing commitment to cater for the totallity of the trade — to lift all cargo, whether high or low rated, awkward, harzardous or refrigerated, in good and in bad times," Mr. Sempill said. His Conference would continue to honour this commitment, he added.

PRINCIPAL

The Conference was established over 100 years ago and comprises the principal shipping lines trading between Europe and Southern Africa. Its members are the national lines of Southern Africa's main trading partners in Europe, together with Safmarine, the South African national line.

Principal constituents of the Conference are the Southern African Europe Container Service (SAECS) with headquarters in London and the Transatlantic Line of Sweden.

The Conference operates three services with vessels calling at United Kingdom and North West continental ports in Europe, at Cape Town, Port Elizabeth, Durban, Walvis Bay and East London in South Africa, and Maputo and Beira in Mozambique.

GERMANY PLEDGES MORE ASSISTANCE

Blantyre DAILY TIMES in English 4 Feb 85 p 5

[Text]

THE LEADER of the Parliamentary Delegation of the budget committee from the Federal Republic of Germany, Dr. Eric Riedl has promised more assistance from his country to Malaŵi.

Dr. Riedl made the pledge at Grand Beach Hotel in Salima in an interview with Mana, after his 25-man team of parliamentarians and government officials had toured several places of interest.

The delegation, which arrived on Friday, had already had discussions with government officials at Capital Hill in Li-

Its members were guests of the Speaker of the National Assembly, Mr. Nelson Khonje. Their Parliament, like Malawi's, is a member of the Inter-Parliamentary Union (IPU).

DEVELOPING

Dr. Riedl said of the many countries the delegation had visited, Malawi

was one of the fastest developing.

He said parliamentarians from his country were convinced that Malawi was the right country to assist.

"We promise to do more than in the past by helping Malaŵi even in air transport," Dr. Riedl said.

Dr. Riedl praised the Life President for the rapid development taking place in the country, saying, "If African leaders were all like the Life Presihave been well developed." dent, the continent would

The delegation was accompanied to the lake by the German Ambassador to Malawi, Dr. Theodora van Rossum.

RECEPTION

On Friday, the delega-tion attended a reception hosted by Mr. Nelson Khonje their host, at the Capital Hotel in Lilongwe.

Speaking at the reception, Mr. Khonje said Malawi appreciated the aid it

received from the West German Government which had helped improve the people's living stan-

FRIEND

He said the assistance Malawi gets from West Germany had enabled the country to increase agricultural production, and that by aiding public utilities and the Rural Growth Centre Project, West Germany had demonstrated the idea of "a friend in need is a friend indeed.'

He reminded them that West Germany was the first to promise aid to Malaŵi.

The promise made to the Life President when he visited their country in 1963, a year before Independence, had been followed to the letter, Mr. Khonje said.

In reply, Dr. Riedl said Malawi's development efforts were a good example which could be followed by others.

"In a world full of hatred, Malawi is a shining

example in the way the country regards other nationalities," Dr. Riedl said.

He said they were very pleased with the hospitality the people of Malawi had shown.

The delegation was expected to leave the country yesterday.

ROAD LINK WITH TANZANIA INCREASES TRANSPORTATION POTENTIAL

Blantyre DAILY TIMES in English 15 Feb 85 p 3

[Article by Duncain Chawinga]

[Text]

MALAWIAN transporters have stepped up their interest in road haulage following the opening of Malaŵi-Tanzania route across the Songwe River in the Northern Re-

gion.

Addressing transporters in Limbe this week, the district chairman of the Blantyre African Businessmen Association of Malawi (ABA), Mr. W. John Chikonde, praised those whose trucks were the first to ply on that route by freighting cargo to and from Mbeya in Tanzania.

Mr. Chikonde further appealed to transporters, especially those owning articulated vehicles of over 25 tonnes, to make

full use of the northern route and other routes into neighbouring countries.

During the meeting the administative manager of ABA, Mr. Greenwell Mponela, revealed that the association had found that there were many containers and other goods awaiting conveyance from and Dar-es-Salaam Mbeya into Malaŵi, as well as from Malawi into Tanzania.

He also said good facilities along the route were already being arranged for the transport-

Mr. Mponela also con-

firmed the report that those who had already been through the route described the road conditions as "very good", thereby dispelling fears held by others that it being the rainy season, the roads would be bad.

He remarked: "Our Tanzanian counterparts using heavy duty trucks have plied right down to Dwangwa, thus proving how road-worthy the conditions were."

A circular letter was issued lately from ABA Head Office in Limbe, in which Malawian transporterswere urged to work

hard in transportation so as to fill the gap left open by Asians who finaly phased out of local transportation on December 31, 1984.

administrative The manager however warned them to expect criticism, especially because Malawian participation in the scheme was still in its infancy.

"If all of us, however, work unitedly under ABA. everything should come out satisfactorily in the end," he assured them.

ABA. among things, arranges road permits and other documentation, as well as vehicle services for their transporters.

cso: 3400/690

ZAMBIA TO PURCHASE MAIZE

Blantyre DAILY TIMES in English 18 Feb 85 p 1

[Text]

ZAMBIAN Works and Supplies Minister, Mr. Haswell Mwale, left the country for home on Friday after signing an agreement with the Malawi Government under which Zambia will buy 80,000 metric tonnes of maize from Malawi.

Speaking to Malawi News Agency on departure at Kamuzu International Airport, Mr. Mwale said hauling of the maize estimated to cost about K14 million US dollars from Malawi to Zambia would start next month.

He described his visit as successful. "We have finally signed an agreement that Zambia should buy 80,000 metric tonnes of Malawi maize as from March," he said.

The Zambian Minister, who was seen off by the Minister of Forestry and Natural Resources, Mr. P. Mtenje, also disclosed that while in the country he had paid a courtesy call on the Ngwazi in Kasungu.

Mr. Mwale said he had told the Ngwazi that discussions the Zambian delegation had with Admarc officials were concluded successfully.

SEA FOOD GROUP SEEKS TRADE LINKS

Blantyre DAILY TIMES in English 22 Feb 85 p 3

[Article by Samuel Chunga]

[Text]

A GIANT South African business group intends to establish trading links with Malawi, I learnt this week

Tiger Oats Limited made its intentions known through Mr. Boris Kaplan, industrial and commercial liaison executive, who was leading a five-man company delegation which ended a four-day "exploratory visit" on Wednesday.

Mr. Kaplan told the 'Daily Times' that his company, whose assets total around K1,000 million, had made successful contacts.

"We've had some small business deals already, particularly on edible oils and high-protein foods. But we hope to expand this in the future to make it bigger," he said.

Mr. Kaplan said the talks his delegation had had in Blantyre and Lilongwe with government officials and members of the business community had been reassuring as far as future investment possibilities were concerned.

He said although no specific targets were in sight, "if propositions come up, then we certainly want to have a look at them very, very carefully."

The Johannesburgbased executive told guests at a reception hosted by Mkulumadzi Farm Bakery Limited on Tuesday that Malaŵians were lucky people who enjoyed a business climate rare in Africa.

He paid tribute to the country's leadership for creating such an atmosphere which had made Malaŵi an "oasis in the desert of want" in Africa.

Earlier, the managing director of Mkulumadzi Farm Bakery, Mr. Nyemba Mbekeani, said Mr. Kaplan's visit was a result of the wise policy of contact and dialogue advocated by His Excellency the Life President.

He said Malawi's fruits of independence were so abundant that even a budding company like his, which is barely three years old, could afford to play host to important South African visitors and other guests representing a cross-section of the Lilongwe Community.

Mkulumadzi also displayed its range of bakery products at the reception.

cso: 3400/691

BRIEFS

CHIRWA IN OIL TALKS—The Minister Without Portfolio and Administrative Secretary of the Malawi Congress Party, Mr. Robson Chirwa, has held talks in London with the co-ordinator for East Africa at British Petroleum (BP) Africa, Mr. M. Jordan, on the possibility of transporting oil by road from South Africa and storing it in Malawi. They also held talks on "a forthcoming major development project in Malawi" in which BP is involved, according to a London Press Service report released in Blantyre on Thursday. No further details were given. [Excerpt] [Blantyre MALAWI NEWS in English 9-15 Feb 85 p 1]

BRIEFS

MALI, SAUDI FINANCE AGREEMENT -- The Kingdom of Saudi Arabia today confirmed the financing of the second Bamako bridge. The announcement was made this morning by the vice president and general manager of the Saudi Development Fund at the Ministry of Foreign Affairs and International Cooperation. Shayk Muhammad (al-Sughai) and Alioune Blondin Beye had just signed an agreement for a gift of \$700,000, that is 346 million CFA francs, to finance the construction of an institute of Arabic education and Islamic culture at Tombouctou. The institute is being built to give logistic support to the ceremonies marking the 15th centenary of (Egir) and which are scheduled to take place in the historic town of Tombouctou. The Kingdom of Saudi Arabia will provide 18 percent of the cost of the project while the Islamic Development Bank will contribute 72 percent. The project will cost \$2.5 million. Upon signing this agreement, Shayk (al-Sughai), who also took part in the Friday prayers at the Bamako central mosque, announced the sincere desire of the government of His Majesty the King of Saudi Arabia to support the Malian Government efforts to improve the standard of living of the Malian people. [Excerpts] [Bamako Domestic Service in French 1500 GMT 15 Feb 85]

CSO: 3419/284

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MILITARY CONDUCTS SWEEP IN NAMPULA PROVINCE

MB220930 Maputo Domestic Service in Portuguese 0400 GMT 22 Feb 85

[Text] A total of seven armed bandits were killed during a recent search and destroy operation carried out by the People's Forces for the Liberation of Mozambique in Muacase District, Nampula Province. Another 10 armed bandits were captured during the same operation and were presented to the residents of Muacase during a rally last Sunday conducted by Feliciano Gundana, governor of Nampula Province. The residents requested severe punishment for these criminals.

In his meetings with the political and administrative structures of Muacase District, Governor Feliciano Gundana left instructions on the opening of more militia training centers and the implementation of further patriotic education work among the residents and the youths in particular.

Our armed forces in Manica destroyed an armed bandit camp at Machave in Chimoi District on 12 February. The radio Mozambique delegation in Chimoio, quoting sources with the district operations command, disclosed that six armed bandits were killed and various others wounded during the attack. Great quantities of war materiel were captured and residents' goods stolen by the criminals were recovered.

In Inhambane Province, the residents of Madonga captured two armed bandits, while the Ligogo residents killed one criminal.

CSO: 3442/186

BRIEFS

FLOOD RELIEF APPEAL—Floods in the province of Sofala in central Mozambique have left about 130,000 people without their food crops. The floods affected people living in the valleys of the Zambezi, Pungue, Buzi and Sabi Rivers. An estimated 14,000 hectares of small farms belonging to peasants have been destroyed in these valleys. The government's natural disasters department says Sofala Province urgently needs about 14,000 tons of basic foodstuffs to help the flood victims. The department adds that the peasants also need about 1,000 tons of corn and other seeds for the next planting season. [Text] [Maputo in English to Southern Africa 1100 GMT 24 Feb 85]

PRC SHIP DOCKS--The ship "Kota Petani" which arrived from the PRC, has been docked at the port of Beira for the past few days unloading an important donation given to our country by the Chinese Government. The gift is worth more than 78,000 contos and includes school and sport equipment, agricultural tools, and an assortment of consumer goods.

[Text] [Maputo Domestic Service in Portuguese 0800 GMT 24 Feb 85]

CSO: 3400/652

All the same is given

POSSIBILITY OF SADF ATTACK ON SWAPO HEADQUARTERS

Johannesburg RAND DAILY MAIL in English 19 Jan 85 p 2

/Article by Noel Bruyns/

 $\overline{\text{Text/}}$ Windhoek--The South African Defence Force has not excluded the possibility of launching a cross-border attack on Swapo headquarters in Angola.

This emerged during a briefing of journalists at the two-day military exercise "Vuiswys" in Ovambo this week.

Colonel A.S. Kleynhans, Senior Staff Officer of the SWA Territory Force Military Information Service said that despite South African-Angolan peace negotiations, "We are still at war with Swapo."

"Swapo will not start the main thrust of its annual incursion before the rains fall. But we've had intelligence from captured Swapo terrorists that Swapo is in training and that there are indications of an incursion.

"We are expecting an infiltration to take place and it is not excluded that we might decide to go for Swapo headquarters again. However, there is no decision at the moment," he said.

Swapo abandoned its permanent bases in the south of Angola when South African forces crossed the border and set up headquarters in Cuvelai.

However, there were reports that Swapo was moving into "certain areas" south of Cuyelai.

Col Kleynhans said the Joint Monitoring Commission (JMC) had had little effect in curbing Swapo movement in Angola.

"Fapla has told us they cannot control Swapo," he said.

Defence Force figures showed Swapo's strength to be 8 000 men, of whom 65% were engaged in anti-Unita battles, he claimed.

Col Kleynhans said the military operation held this week could not be linked with a Swapo incursion as Swapo did not pose a threat to the conventional forces of the SADF.

However, the exercise, which was carried out 50km south of Ruacana on the SWA/Angolan border by the conventional force of 61 Mechanised Battalion, was based on a cross-border strike into Angola.

Terrain similar to that of southern Angola had been chosen for the exercise to simulate a realistic war situation.

SADF Exercise In SWA 'Not a Dress Rehearsal'

Windhoek--The South African Defence Force yesterday ended a two-day military exercise in northwest Ovambo based on a cross-border strike into Angola.

However, the exercise was not a warm-up for a real operation into Angola but part of the operational training for national servicemen, said Major-General Georg Meiring, general Officer Commanding SWA Territory Force, who attended the exercise.

It was the first time the media were invited to cover a conventional warfare military exercise in the war zone.

It was also the first time that tanks were used in a military exercise in the area. Another first was an exercise in the breaching of minefields.

About 1 000 South African national servicemen of 61 Mechanised Battalion took part in the exercise.

Two dozen local and foreign journalists followed the infantry, armoured vehicles and tanks over sandy and bushy terrain about 50km from the border town of Ruacana in a simulated war attack against three enemy positions.

To simulate a realistic war situation, terrain similar to that of southern Angola was chosen and live ammunition was used in the exercise.

Only one soldier sustained a minor hand injury in the joint Army and Air Force day-and-night attack.

Colonel A.S. Kleynhans, senior staff officer of the SWA Territory Force Military Information Service, said that the exercise was carried out because, despite peace negotiations between South Africa and Angola, "We are still fighting a war with Swapo."

FIGURES ON COST OF WAR GIVEN

Johannesburg THE SUNDAY STAR in English 20 Jan 85 p 2

/Article by Jaap Boekkooi/

 $\sqrt{\text{Text}/}$ The cost of killing Swapo terrorists in Namibia last year rose to more than R1,7 million an insurgent, according to provisional figures.

This makes the Namibian border war, now in its 19th year and with a total of some 8 700 insurgents killed, one of the most expensive ever waged in Africa.

Last year's official figure of Swapo killed by the security forces was 584. Set against South Africa's total subsidy of the territory of an estimated R1 000 million, this works out at R1 712 328 and 70c a kill.

If only the military cost of the war, estimated at R547,5 million last year is taken into account, the cost of killing one Swapo insurgent now works out at R937,500.

The figures underscore President Botha's statement last year on the need for peace in Namibia in view of South Africa's heavy financial involvement in the former mandate territory.

South Africa will have to pour even more money into Namibia because its own tax resources are dwindling.

There is less tax income from agriculture and almost nothing from the once prosperous fishing industry.

Tax revenue from Consolidated Diamond Mines has dropped by almost three-quarters in some three years, but Rossing Uranium Mine is expected to increase contributions to R25 million a year.

The cost of military operations, estimated at R500 million in 1983 went up by almost 10 percent last year to an estimated R1 500 000 a day.

At an average of 21 "contacts" a month between Swapo and the security forces, the average cost per every clash, large or small, worked out at R2 172 600 each.

No similar calculations of Swapo's cost structure can be made because its estimated force of 8 000, equal to some seven field battalions, is financed mostly by Angola and other foreign sources.

The chief of the South West African Territorial Force, Major-General George Meiring, has claimed that the ratio of Swapo kills against those of his forces is one to 21.

CONTINUING 'PLUNDER' OF SWA/NAMIBIA TERMED 'SCANDAL'

Cape Town CAPE TIMES in English 7 Jan 85 p 8

 $\overline{/A}$ rticle by A.H. Hear $\overline{d/A}$

 $\overline{/\text{Text}//}$ The neglect of SWA/Namibia by almost everyone who should be seized of the subject is becoming a scandal of our times.

The result of the neglect is a mood of drift in the territory and open season for all who would plunder its resources before independence. Because the South African government bears and accepts responsibility for the mandated territory, it must address the situation. The West should not play Pontius Pilate, either.

Ironically, as long as things continue like this, South Africa bleeds away its money, men and skills in one of the world's last formal colonies.

The scale of the problem grows in vast strides each year that internationally recognized independence is denied SWA/Namibia. This was obvious to me on a recent visit, one of many I have made to the territory dating to the first really ominous international noises in the early 60s. It was obvious, too, in a special four-page report on Namibia in the Paris-based International Herald Tribune (IHT) on November 1, a report which has not enjoyed the public attention it deserves.

Vulnerable

I possess a beer mug confidently minted by a liquor business in SWA/Namibia proclaiming Namibian Independence 1978. That illustrates the degree of miscalculation and consequential neglect. Instead of beating war-racked Rhodesia to independence, as seemed likely in the late 70s, SWA/Namibia is bogged down in over-government, exhaustion of resources and general muddle about where it is going.

A vast, beautiful yet vulnerable country is in danger of being ripped off. Its mineral resources are under pressure. Wild life is being poached, fenced and parched to depletion. The rich sea is being over-fished by local and international interests. Valuable underground water is being tapped for mining at a rate which some experts feel is excessive.

There are allegations of over-mining and corporate tax-ducking. The country is increasingly in debt as it tries to digest unproductive goods and services it often does not need.

The north is at war.

Namibians face the array of predations with a mixture of cynicism and helplessness. The less than a million population in a country two-thirds the size of South Africa are shell-shocked by war, political manoeuvre and delay.

Meanwhile, a sacred trust entered into by South Africa when it assumed the old League of Nations mandate after World War 1, with implied continuation of stewardship when Pretoria in 1947 agreed to submit reports to the successor body, the United Nations, is in question and in jeopardy.

Betting

To discharge the spirit of this trust and save the country from being run down, South Africa must withdraw and the West must help to this end.

Sadly, the betting in informed circles at the moment is on another word-filled attempt at an "internal" settlement, with or without some of Swapo. The likelihood is that this will fail after more delays have been chalked up and, in due course, ensuring that the country inherited by an independence government under the only acceptable device, UN Resolution 435, will be even more of a shell.

Let us look at but a few of the worrying factors which lead to the thesis of this article. Though the full lunacy of Verwoerdian bantustans, "independence" for tribal rural slums masquerading as states has not been visited on SWA/Namibia, largely because of international complications, the country is segregated at second tier of government into 10 different ethnic authorities (incidentally, surely exacerbating historic rivalries).

It all costs money. The IHT special report points out that in five years state spending rose from 32,5 percent of gross domestic product to 62 percent—which makes the great march of the state sector in South Africa look modest by comparison.

The IHT quotes a document drawn up in 1983 by the secretary of finance, Mr Johan Jones, which was leaked to the press, describing the ethnic authorities as "parasites feeding on the fruits of the land without any control or supervision...which is leading to the rapid collapse in the entire economy."

Duplication

He was further quoted as saying that if politically-motivated spending continued, by 1987 the territory's foreign debt would be equal to its total GDP. As it was, expenditure was already moving beyond the means of central government.

There is much comment in the territory about costly duplicated services which the country cannot afford. Administrative offices, clinics, schools, services of all types, are duplicated on an ethnic basis. If geography and not ethnicity were the guide, there would be sensible rationalization. Some is taking place, e.g. in some hospital services, but not enough.

Roads are being built, often for strategic and other non-economic reasons, at a grand pace. The Jones document, according to the IHT, not only said the country was oversupplied with roads, but with electricity and hospitals.

Wild life is being severely depleted. My impression is that people can too easily get permission to kill at will. Arrangements covering what can and what cannot be killed, and in precisely what circumstances, are complicated enough to facilitate trigger-pulling.

Poachers

Fortunately the force of tenacious publicy by environmental writers and the efforts of private and official anti-poaching operations in places such as Damaraland and Kaokoland have checked the worst and influential quarters in the SADF appear to have realized the need to take a strong line on poaching.

A mere few years ago it was virtually open season for poachers. There are still worrying poaching reports from places such as Western Etosha, where an indeterminate number of rhino have been poached—all in the honourable interests of big-syndicate lucre and Eastern sex drives (powdered rhino horn, in fact, has highly dubious aphrodisiac qualities).

Much damage has been done. Desert elephants (found nowhere else in the world except Mali/Mauritania) which numbered thousands just decades ago are down to 72 with desert rhino down to half that number. It is arguable whether they can be protected sufficiently for long-term survival.

Massed Tourists

Fish resources are fading under pressure of commercial and private effort. It is not unusual to see Russian or other predatory trawlers through binoculars from the Skeleton Coast. In view of the international uncertainty, who can effectively stop them?

Who cares?

It is instructive to see the massed tourists heading north on the salt-covered coast road from Swakopmund through the recreational area and the Skeleton Coast part, their powerful 4WD-vehicles bristling with fishing rods, their deep-freezes perched on trailers, ready to hit the fish at Torra Bay. Terrace Bay and various spots en route.

Nature conservation officers do valiant and little-recognized work to check over-fishing but the coast is vast, the budget tight.

No Play Park

Being part of the rand currency area, SWA/Namibia is in the same vortex of inflation as South Africa, as its economy declines visibly. With only the primary sectors of real economic significance, with little or no manufacturing industry and leaning heavily on Souty Africa for imports, SWA/Namibia could be described as a mandated service industry, serving others not itself.

The important point is that SWA/Namibia us not a private play park for plunder or a practice ground for the South African army, but a country for its own self-respecting people. Not a poor country either. Assuming careful conservation of resources by its own accountable government after independence, it could pay its way.

If not, then at least its own government would be on the hook, not Pretoria or the world.

It needs independence now.

SATS R80M DEFICIT SLATED BY MUDGE

Johannesburg THE CITIZEN in English 22 Feb 85 p 12

[Text]

WINDHOEK. — The transfer of SA Transport Services (Sats) to SWA with an expected deficit this year of R80 million would add to the financial burden of a future government in the territory, the chairman of the Democratic Turnhalle Alliance, Mr Dirk Mudge, said yesterday.

He was commenting in Windhoek on an announcement by the South African Minister of Transport Affairs, Mr Hendrik Schoeman, that responsibility for Sats in SWA would be handed over to the territory's administration from April 1.

Air transport, tourism services and Walvis Bay harbour would not be affected by the move.

Mr Mudge asked why Sats reserved certain services for itself. "Must we only take the loss side?"

The territory was entitled, among other things, to revenue from passenger services on flights abroad.

Mr Mudge said farreaching decisions were often taken about SWA without consultation.

A spokesman for the office of the Administra-

tor-General, Dr Willie van Niekerk, said a statement would be issued to-day after he had studied complete documents of the Transport Budget speech.

The executive committee member charged with agriculture in the administration for Whites, Mr Jannie de Wet, said increased transport tariffs would partly wipe out an estimated R22 million in relief granted to farmers since the beginning of the year.

The managing director of Swawec, Mr Polla Brand, said an increase of eight percent in the tariff for coal transportation meant an effective increase of 14 percent to SWA.

It would be difficult to maintain the existing price structure of electricity supply, he said.

The chairman of the Meat Producers' Association, Mr Justice Chris Mouton, said a 12 percent increase in railage of livestock would add between R6 and R7 a head of cattle to the marketing costs at Cape Town market.

Farmers would not be able to recover the cost increases, he said. — Sapa.

MORE TESTS NEEDED ON KUDU GAS FIELDS

Johannesburg THE CITIZEN in English 22 Jan 85 p 15

Text/ Windhoek--Further tests on the Kudu gas fields in the Atlantic Ocean of southern South West Africa would be carried out in due course to determine the extent of the find, the Administrator-General, Dr Willie van Niekerk, said yesterday.

He was approached for comment on weekend reports that the South African Government had given the go-ahead for the development of the gas strike about 120 km into the sea off Oranjemund.

Dr Van Niekerk said further statements would be issued as soon as more data became available and the financial implications for South West Africa had been assessed with greater accuracy.

"At this stage, it appears that it will be an important source of revenue," he said.

The strike was made in 1974, but in view of uncertainty over the constitutional future of SWA, no steps were taken for development by South Africa.

A single borehole on the southern edge of the gas field yielded such high pressure that a recent business survey estimated the Kudu field was four to six times larger than a similar gas find off Mossel Bay.

Although three more test holes had to be drilled in the sea, it was estimated that the Kudu field could supply up to 65 percent of South Africa's fuel needs.

Reports said initial indications were that the gas would be shipped to Cape Town for liquefaction into fuel.

Meanwhile, a Swapo spokesman, Mr Anton Lubowski, said the Republic's apparent change of mind about development of the SWA reserves "is a clear sign that South Africa is not interested in independence for Namibia."--Sapa

cso: 3400/605

DEVELOPMENT PLANS FOR KUDU GAS FIELD REVEALED

Johannesburg SUNDAY TIMES in English 20 Jan 85 pp 1, 2

 \overline{A} rticle by Neil Hooper and Alan Soule \overline{I}

 $\overline{/\text{Text/}}$ SOEKOR has been given the go-ahead to develop a multi-billion-rand gasfield off the coast of South West Africa/Namibia--after the Government had kept the discovery a secret for 10 years.

The gas find is rated among the world's biggest and experts estimate that reserves worth R8 000-billion could be extracted and converted to fuel over a period of 30 years.

The development plans were revealed yesterday by the managing director of Soekor, Dr Piet van Zijl, and confirmed by a spokesman for the Department of Foreign Affairs.

The Sunday Times first revealed the existence of the massive Kudu field on December 23 after obtaining a copy of a study of West Coast oil prospects by a Johannesburg stockbroker.

According to the report, the Kudu field could meet between 30-and 65-percent of South Africa's fuel requirements.

It estimated that, with fuel from the gasfield off Mossel Bay and that produced by Sasol, Kudu could make South Africa self-sufficient.

But the report added: "Political considerations have to date prevented any firm arrangements."

Now, with the Government apparently committed to South West Africa becoming independent Namibia, these political factors have fallen away.

The field was discovered in 1974 after an American company, Chevron, had sunk a well 120km off the mouth of the Orange River.

Go-ahead

A former top executive at Soekor said this week: "The find would have been a very attractive proposition if the politics in South West Africa had not been so uncertain at the time."

The discovery was kept under wraps while the wrangle over SWA's future continued.

This was confirmed yesterday by Dr van Zijl, who said that the Government, through the offices of the State President, the Minister of Mineral Affairs, and the Minister of Foreign Affairs, had only recently changed its attitude and given the go-ahead for development.

This was confirmed by a spokesman for the Department of Foreign Affairs.

He stressed, however, that there was "no question of these reserves being exploited now for the benefit of South Africa."

"The Government has agreed that feasibility tests be carried out for the benefit of the people of a future independent Namibia."

Dr van Zijl said Soekor holds the concession rights and that the gas would be converted to fuel in South Africa with the proceeds going to SWA/Namibia.

This would provide an invaluable source of income to the territory.

Dr van Zijl said Soekor would not undertake further exploration of the field—which requires the sinking of another three wells to determine the exact size of reserves—but hoped that an overseas company would do so.

The Sunday Times approached Dr van Zijl after obtaining a copy of a report on the Kudu field he drew up in November 1979.

In the report Dr van Zijl said that if the field proved to be as large as preliminary findings suggested, it would have reserves of at least two-trillion cubic feet of gas and that this could be used to fire a power station on the coast and for conversion to fuel.

Yesterday Dr van Zijl said the 1979 report had not been implemented because "everyone was put off by the political situation in South West Africa."

This had now changed.

"Now it appears that the political situation is not of such importance. We will have to accept that whatever government comes into power in the territory, it will welcome the income from the gas.

Jittery

"And it will greatly ease the financial burden South Africa is at present bearing for the territory.

"Now we will have to see if anyone is interested in carrying out the exploration. Previously they were all jittery, but now I don't think a non-political company will be nervous about becoming involved in South West African prospecting."

Dr van Zijl said that although further wells had to be sunk, he was very optimistic.

"The field must be considerably larger than the one at Mossel Bay...at least four or five times bigger and it will supply gas for two or three times longer," he said.

The sinking of these wells would take several years.

He envisaged that the gas would be transported by ship to a conversion plant, possibly in Cape Town, where a fuel-from-gas plant would manufacture the fuel in a method similar to the Sasol fuel-from-coal process.

Dr van Zijl said that, contrary to his recommendations in 1979, Soekor would now convert all the gas into fuel.

RANCHING 'FACES COLLAPSE'

Port Elizabeth EVENING POST in English 22 Jan 85 p 3

[Text]

WINDHOEK — The agricultural economy and the cattle industry in SWA/Namibia are facing collapse unless the country gets copious rains soon.

The seven-year-old drought had resulted in a degeneration of pastures almost beyond rehabilitation, Mr Jannie de Wet, MEC for Agriculture, told newsmen.

He said the country had only half the cattle it had a few years ago and that the country was in danger of being denuded of livestock.

Thousands of farm labourers are being retrenched because of the drought, leading to the growth of the country's first slums.

According to Mr De Wet many of the country's 100 000 farmers are flocking to the towns.

• While the mandated territory suffers, dam levels are continuing to rise in the Transvaal. Heavy falls have fallen in the far-Northern Transvaal.

Many parts of the Transvaal have already exceeded their average rainfall for January, and more soaking rains have been predicted for the province, Natal and the Free State.

Many roads in the border areas are impassable with the Limpopo and its tributaries in flood.

Bushveld cattle ranchers, who sold large herds during the drought, face important challenges. Many are in dire financial straits but need cash to buy livestock. Interest rates are prohibitive.

Mr Edmond le Roux, the Department of Agriculture's Assistant Director for Western Transvaal, said widespread rain had come just in time to save maize planted in late November.

The Eastern Transvaal has had falls of well above average for the period from July to December.

The Hartbeespoort Dam is now 40% full, up 11% on last week. Even the Vaal Dam has shown an improvement — up 1% to 17,75%.

Dams in the far north are on average 50% fuller than a week ago with at least three overflowing. — Sapa

COUNTRY'S BLACK EDUCATION WAY BEHIND WHITES

Port Elizabeth WEEKEND POST in English 19 Jan 85 p 4

[Text]

WINDHOEK — Startling statistics on the discrepancies between white and black education in SWA/Namibia emerged this week as a record 340 000 pupils registered for the first 1985 school term.

In a wide-ranging survey published in the liberal English daily newspaper, the Windhoek Advertiser — whose figures have been cross-checked by the Africa Bureau — it emerged that:

- Namibia needs 1 000 new teachers and about 50 schools a year to cope with the backlog in black education.
- In Owambo, which has 51,5% of the country's schoolgoing population, there are 43,7 pupils per teacher, while white children have one teacher to every 12,6 pupils.
- There are 10 129 teachers in Namibia at present, and although this figure will have to grow by 1 000 a year to meet present needs, 81,4% of all teachers presently employed are underqualified, have less than the required Std 10 and three years' training.

- Many black schools are operating on a double-shift basis, with morning and afternoon classes for separate groups to cope with the shortage of teachers and classrooms.
- Despite the teacher shortage, the wealthy, right-wing administration for whites has cut back on its intake of trainee teachers this year.

Only 60 new students were enrolled at the all-white Windhoek Teachers' Training College this year, bringing total enrolment figures to just over 200. The college has the capacity to train over 1 000 students.

But because education in Namibia is a function of the second-tier, or ethnic authorities, no blacks are admitted to the college. Centre of repeated controversy over its apartheid rules, the college and the administration have consistently resisted attempts to open the college to all races.

This is despite the fact that many of the graduating teachers will not be able to find jobs in white schools in SWA/Namibia this year because there are simply no posts available.

And in a statement handed to Senator Edward Kennedy the Council of Churches in Namibia (CCN), it was pointed out that in the 1982-83 budget year, R1 762 was spent on education for each white child, while black children received R324 each.

It was also stated that while only 12% of black children reach secondary school, the corresponding figure for whites is 42%.

Because of the richer tax base of the white administration as opposed to that of the other ethnic administration, the administration is sitting with a massive cash surplus estimated to be in the region of R90 million, while other administrations are either permanently bankrupt or struggle to make ends meet.

The Advertiser survey revealed that although 71 000 scholars registered for Grade 1 (Sub A) in 1984, there were only 48 000 Grade 2 (Sub B) pupils in the same year.

And there were only 2 193 pupils registered for matric last year, indicating an "alarmingly high dropout rate", the Advertiser said.

BRIEFS

OSHAKATI BOMB BLAST--Windhoek, 27 Feb (SAPA)--Two people died in a powerful bomb blast which ripped through a wholesale shop at Oshakati in northern SWA/Namibia today. A white woman and a black man died, while seven Ovambo civilians were injured and admitted to a hospital, a spokesman for the SWA Territory Force said in Windhoek. The victims have not yet been identified. The explosion occurred at 10:55 am. Damage has not yet been assessed. [Text] [Johannesburg SAPA in English 1102 GMT 27 Feb 85]

cso: 3400/659

RENEWABLE ENERGY RESEARCH CENTER

London TALKING DRUMS in English 28 Jan 85 p 16

/Article by Amadou Dieng/

/Text/ Senegal has shown itself to be a pioneer among African countries in the promotion of fundamental and applied research into renewable energy. As long ago as 1955, five years before the country became independent, Dakar University (the first university in French-speaking Africa) already had an institute of meteorological physics in its Science Faculty.

The institute was subsequently named the Henri Masson Institute, in honour of the first dean of Dakar University's Science Faculty, who was one of the first people to realise that there could be no development without research. As a result of its rigorous and wide-ranging research work, the Henry Masson Institute soon became one of the country's leading research bodies, and its reputation spread beyond Senegal's frontiers.

Three years ago, the institute had expanded to such an extent that it was turned into a fully-fledged university institute and given a new name, the Renewable Energy Study and Research Centre (CERER).

All research undertaken by the centre is geared to the needs of the rural world. It is mainly focussed on the problem of how to obtain water. The main line of research concerns the development of solar pumps or solar motor-pumps, which use the energy from sunlight to extract water from the ground.

This research programme aims essentially to solve water problems in villages and pastoral areas. For despite efforts already made by the Senegalese government, especially in the wooded and pastoral zone where most of the country's livestock is concentrated, the problem of water is still a relatively urgent one for the human and animal population, particularly at a time when a long-term drought seems to have set in.

The programme has been given top priority by the government, which has, moreover, worked out and begun to implement a national water plan. Thanks to CERER's research, there are now many solar pumping stations in rural areas; the centre has also helped to set up wind-powered pumping stations.

CERER, which has achieved spectacularly good results from the programme, has chosen as its second line of research the use of solar energy to preserve foodstuffs by drying. It has concentrated its efforts on developing a solar fish-drying plant. Senegal has enormous fishing resources, but preservation techniques are for the most part rudimentary, and result in a wastage rate of 40 to 60 percent. Whereas both self-employed fishermen and the fishing industry use modern equipment catches are in the region of 380,000 to 400,000 tonnes a year.

If that production is to be properly used, proper processing techniques must exist. CERER has therefore developed solar fish-drying plants for a number of fishing co-operatives, with the result that the end-product is not only obtained more quickly, but is of higher quality.

The success of this venture encouraged CERER to install a giant 100-square-metre solar fish-drying plant in N'Guet N'Dar, a fishermen's district of Saint-Louis, the former Senegalese capital and now the administrative centre of the northern region. Other projects have been carried out on the "Little Coast," in the region of Thies, and in other places where there is organised fishing.

A third line of research undertaken by CERER has been the development of solar water-heaters, with the aim of making them economic enough to replace electric water-heaters. The government has set up the "Albert Daguerre" Industrial Company for the Application of Solar Energy (SINAES) and given it the task of popularising such equipment, which is for the moment being offered at a special low price. All such action is aimed at meeting the challenge of the energy crisis.

Senegal intends to prove, through the implementation of these various programmes, that efficient use of locally available energy is one of the solutions to that energy crisis. The exploitation of solar energy is expensive, but, through photovoltaic techniques which enable the sun's rays to be converted directly into electric current, Senegal is determined to arm itself with a wide range of possible options in the sphere of solar energy. The expert view is that such methods will never be able to meet major needs; but for small schemes involving isolated villages, photovoltaic techniques are certain to prove not only useful, but economic.

40 Percent Fuel Savings

Senegal has taken the bold step of seeking solutions in the sphere of thermodynamics as well: its solar power station at Diakhao (in the Kaolack region), which was built under the aegis of the National Electric Energy Company, is the first of its kind in Africa. It shows that thermo-dynamic principles, too, can offer a viable solution. Unlike photovoltaic techniques, thermodynamics makes it possible to produce electricity without converting solar energy. Although an expensive solution for large-scale development schemes, it does offer an answer to the energy problem faced by the developing countries.

But above all CERER is focussing its attention on the way the biomass, and more particularly wood, is being used at a time when the process of desertification is gathering pace. Sixty percent of CERER's work involves the development and distribution of improved cooking fires known as "Bank ak Suuf" (clay and sand) stoves. This is one way of exploiting local resources by using local materials (clay and sand); it also relies on an endogenous technique that is straightforward, easily accepted, and above all so inexpensive that it can be afforded by even the poorest families.

At present, there are over 20,000 such improved stoves in rural areas. The Senegalese government has set up a 250 million Central African Franc programme aimed at distributing 300,000 to 400,000 such stoves, which save between 30 and 40 percent firewood, as part of the fight against desertification. In this way, what remains of Senegal's forests may be saved. The traditional "three-stone fireplace" wastes considerable amounts of energy. The improved cooking fire programme also forms part of the campaign for energy saving. The United States Agency for International Development has given much support to the programme by, for example, funding training centres in various other villages.

CSO: 3400/599

BRIEFS

NIGERIAN INVESTMENTS—The Minister of External Affairs, Dr Ibrahim Gambari has said in Kano that Nigeria had invested 27m naira in Senegal's chemical industry which he said represented the country's 10% share in the company. Dr Gambari said the Federal Government was considering the possibility of buying more phosphate and crude salt from Senegal to reduce the trade imbalance between the two countries which he said was in favour of Nigeria. He said that the move was also aimed at improving bilateral trade between the two countries, adding that it would be cheaper to buy the commodities from Senegal because of its proximity to Nigeria. On ECOWAS, Dr Gambari said that member countries had resolved to give the organisation a new lease of life by bringing in new hands to manage its affairs. He said that the organisation had been "dormant" in the past year because some of its members were not living up to expectation. He said: "We hope by the time the new changes are made we shall be on the way to achieving our objectives." /Text// London TALKING DRUMS in English 28 Jan 85 p 25/

AGREEMENT TO DEBT RESCHEDULING -- The country's major creditor countries, including France, have agreed on an important rescheduling of her external debts spreading the repayment over nine years with a four-year grace period. In a statement issued following a two-day meeting in the French capital, Senegal's 11 principal creditor countries, meeting within the Paris Club, expressed satisfaction with the confirmation given by the IMF on 16th January to its agreement with the Senegalese Government's economic and financial programme. It was in the presence of Senegalese Economy and Finance Minister, Mamadou Toure, that the representatives of the Paris Club member countries agreed on the princple of an important rearrangement of Senegal's external debts... Faced with an economic and financial crisis aggravated by the drought, Senegal presented in the middle of December 1984 its seven-year economic recovery programme, to the consultative group of the donor countries... On that occasion, the principle of new aid to Senegal to the tune of 500m US dollars in 1985 was decided on. $\sqrt{\text{Text}/I}$ $\sqrt{\text{London}}$ TALKING DRUMS in English 4 Feb 85 p $24\overline{/}$

TERRITORIAL WATERS LIMIT--There are plans to reduce the limit of the country's territorial waters from 150 to 12 nautical miles (280 to 22km) in compliance with the UN convention on the Law of the Sea. According to legislation currently under examination the country is also to drop its claim to a 200-nautical-mile (370km) economic exclusion zone, but will maintain a claim to an offshore fishing zone of the same depth. Economic exclusion zones, which have been claimed by many of the signatories of the treaty, include claims to mineral exploitation rights over the sea-bed as well as to fishing rights. The proposed changes, adopted at a Cabinet meeting are now subject to approval by the Senegalese National Assembly. /Text//London TALKING DRUMS in English 4 Feb 85 p 24/

FRENCH ASSISTANCE PROGRAM--As part of the French technical military assistance programme, the armed forces in 1984 received three AML-90 Panhard armoured vehicles equipped with Hispano Suiza Lynx turrets. /Text//Paris AFRICAN DEFENCE in English Jan 85 p 8/

AIRCRAFT FOR AIR FORCE--The Senegalese Air Force has received four military versions of the Rallye aircraft made by SOCATA (France). They will fly control and surveillance missions. The Air Force also took delivery of two Fokker aircraft. /Text//Paris AFRICAN DEFENCE in English Jan 85 p 8/

CSO: 3400/600

BOTHA'S PROMISES OF REFORM ANALYZED

Johannesburg THE SUNDAY TIMES in English 3 Feb 85 p 20

/Commentary by Otto Krause/

 $\sqrt{\text{Text/}}$ Like a farmer carefully culling his cattle, President Botha last week diligently sorted through the National Government's stock of ideas, notions and policies.

With a shrewdly practical eye, he threw out much scrub and dross.

Most importantly, he ignored the stud book and rejected those unserviceable holy cows born out of ideology and arrogance.

The herd in the Nationalist kraal of ideas now looks stronger and healthier.

If ever such a drastic culling was necessary, it was now.

Since 1978, reform has been under way, and its first benefits are being reaped.

But those measures have dealt only with the anomalous position of the coloureds and Indians, largely of the National Party's own making.

In abeyance--at least in the public eye--was the far greater question of a settlement between black and white South Africa.

And if any area of policy was cluttered with unworkable notions, it was that.

P.W. Botha had the guts to sweep them out of the front door, in sight of all.

It does not take much reading between the lines of the State President's opening speech to Parliament to see that dramatic house-cleaning for what it is—especially if one has followed the internal debate in the Nationalist establishment these past few years.

Momentous

Yet a new view of black and white in South Africa has been stirring among Nationalists much longer than the past few years, first as something of a verligte counterculture within the fold (frequently admonished by men such as John Vorster), while more recently it has increasingly become acceptable Establishment thought.

Besides, the Special Cabinet Committee, comprising the Government's top brass under Minister Chris Heunis, has been working on new guidelines for black and white relations for two years; and it has been essentially amenable to black aspirations and uncommonly realistic.

The State President's statement on a new deal for blacks was then the carefully worded sum total of these yet-unfinished deliberations; and the result is already far-reaching.

More than anything, the speech signalled a momentous change of course; historically-speaking it was every bit as important as Dr Verwoerd's "New Vision" speech on separate development in January 1959.

All the more so because it finally put paid to the ideological rigidities of the era that very speech of Dr Verwoerd's ushered in.

It equally ushers in a vision of a new South Africa: more tolerant and understanding, increasingly free of restrictive racism and superiority/inferiority notions, and, going a step further from live and let live, to thrive and let thrive.

This vision looks not only to the closest co-operation between South Africa's peoples, but to a sharing of ideals--a great step forward for the NP.

Mistrustful

It is, nonetheless, also a South Africa of nationalities (as distinct perhaps from the old South Africa of nations), and, as the State President reiterated, it must be a South Africa in which no one group dominates another.

Verwoerdian rigidity never was the sine qua non of a South Africa either of nationalities or of nations.

In fact, from a multinational point of view, such strict ideological separateness came darn close to destroying that very ideal—because it was inherently mistrustful of other nationalities, and blacks in general, and because in black eyes it sought to destroy them.

In that regard, Government has now measured up to the reality that a South Africa of nationalities can only exist if goals and trust and understanding are mutual.

Command politics have to be shed. And by flexing their muscles blacks have helped bring home that reality.

- --Gone is the strict application of linkage between black city-dweller and homeland. Where it is desired, fair enough; but it is to be a matter of choice and not enforced.
- --Gone is the idea that blacks are merely temporary residents of so-called white South Africa. Though publicly stated before, the speech has again emphasised the point with practical applications to come.
- --Gone is the off-beam notion that withholding of property rights for blacks underlines their impermanence.
- --Gone is the policy that ultimately there shall be no black citizens of a white South Africa.
- --Gone is the idea that blacks in white South Africa or the self-governing states shall have no say in central decision-making.
- --Gone is the notion that the independent black states, and the citizens they represent, should be completely cut adrift.

Taking the historical and political investment in such sanctified "principles," one can only say that such excision—and the admission thereof—called for a certain braveness.

And in this vein, the State President significantly recognised that problems between Government and blacks do exist, that there are bottlenecks causing frustration.

Yet there were none of the old excuses, like blaming it all on agitators.

The new determinant is "to give everyone a share in the decision-making processes that touch their interests"—nothing less than a new commonality.

Conjoined

And raising eyebrows even further, Botha said, "This goal applies to all the communities in South and Southern Africa."

In that statement one clearly reads not only participation for all black South Africans in a power brokerage up at the high centre, but also a drawing in again of the TBVC countries: although independent, they are offered a say in actions of the RSA that touch them, and vice-versa.

From this could come an interstate organisation closer-knit than either NATO or the European Community; the groundwork, after all, has already been laid by the elaborate multilateral system currently operating.

As for blacks in the self-governing states—e.g. KwaZulu, Lebowa, etc—they too will be drawn increasingly into joint structures, as will all the blacks in white South Africa, with suitably-designed institutions and upward channels.

Thus for everyone a say at the highest level.

And Government cannot be accused of opting for the city blacks or the homeland blacks--all will be conjoined.

Moreover, if the new system looks like being too fragmented or complicated, the Government in the longer term suggests an umbrella-body with due representation of all constitutional entities to decide on common matters.

The Government's new point of departure is essentially practical; and it will proceed empirically.

Except for the one single parameter, namely that no national group can be allowed to dominate another, it is as much open to suggestion from blacks as it is determined to gain a solution.

Priority

Hence the proposal for an informal, non-statutary forum for general consultation with blacks.

This idea is already faced with rejection on the part of some leading blacks.

But others may begin to negotiate—as some rejectionists have actually already done, informally.

Meanwhile, much of the air around this proposal needs to be cleared up. Everybody must realise that the era of horse-trading politics has begun.

On a deeper level, Government has become aware that at the bottom lies the question of inimical attitudes; and this, after years of neglect, it will seek to correct.

Perhaps this is our first priority.

Accordingly, the State President has instructed all government departments in the socio-economic field to come up with programmes for improving attitudes in the execution of their tasks.

Furthermore, black education will be more fully supported; and influx control and population removals are to be reviewed and eased.

But improving attitudes in South Africa is not only a matter for civil servants; it is also up to ordinary citizens.

If the Government can free itself from the Tar Baby of impossible ideology, so can the rest of us unstick ourselves from the glue of prejudice.

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CSIR RESEARCH ORGANIZATIONS DETAILED

Johannesburg ENGINEERING WEEK in English 31 Jan 85 pp 19-30

[CSIR Special Survey]

[Text] National Institute for Materials Research

If South African industries are to remain competitive in world markets, materials research and constant updating of materials data are essential ingredients for any further success scenario.

Without the resources available to their larger counterparts overseas, local industries are hard pressed to keep pace in the research and development field or even in the technological implementation of new developments. The sheer costs of research facilities and the shortage of suitably qualified people puts this effort beyond all but a mere handfull of major groups.

With this limitation in mind, the CSIR has established the National Institute for Materials Research (NIMR) to act as a fully equipped and staffed R&D laboratory to support industry, even the smallest and youngest enterprises, with the latest technical information as well as access to expertise in the application of advanced research facilities.

The Institute's three most important objectives

are to undertake in-house and national research programmes at the highest levels possible, to provide a base of expertise that will put local industry on a footing with overseas competitors and, in general, to promote the field of materials science and engineering.

Its work takes the Institute into the fields of metals, alloys, ceramics, glass, semiconductors, polymers and composites. There is an underlying philosophy that where possible efforts should be made to improve and further exploit the vast South African raw material resources in the form of upgraded materials.

This can either support import replacement ventures or efforts to enhance exports of items of higher technological value.

The research thus covers many developing hightechnology areas with emphasis on materials processing together with indepth investigations of structural, physical (including electronic and optical) and mechanical properties, and also includes wider topics such as wear, corrosion and materials selection.

Among the more promising investigations carried out by the NIMR is one into the use of the piezoelectric effect. This technology relies upon the fact that certain materials, some of which are single crystals and others polycrystalline ceramics, show reversible electro-mechanical coupling.

The development of piezoelectric transducers has opened many new horizons for innovations in which these effects can be exploited.

Among these are many acoustic devices, detectors in mining to provide early danger warning systems for potential rock bursts and mechanisms for the fine adjustment of laser mirrors for high accuracy measurement. Other programmes of significance relate to high technology and so-called "structural" ceramics.

In the field of metallurgy, the Institute has developed a new series of steels which provide the potential for replacing certain imported alloying additions. The expertise generated is now being utilised in full to undertake specific alloy development programmes under confidential contract agreements.

Other longer term projects include a study on the development of alternative stainless steels which appear to have economic advantages, and the design of more abrasion resistant and tougher white cast irons.

The importance of advanced surface treatments and coatings technology and the whole field of surface engineering has been identified and research in this area has tremendous industrial potential.

The developments in technology in the modern era can in large part be related to the development of semiconductor devices. The NIMR is actively researching advanced semiconductor materials with properties superior to those of the more commonly used silicon.

Each material has its own specific processing routes and other technological requirements. Great strides have been made in establishing advanced facilities for the preparation of these materials and their complete electrical and optical characterisation.

For materials research, there is no doubt that the NIMR laboratories can compare favourably with any in the world for general industrial requirements.

Information and Research Services

In the fields of research and development, the explosion of information and technological knowledge has reached incredible proportions and spawned a whole new science of information gathering, classification, structured retrieval and assisting people to obtain what they want.

But even having the biggest library of printed and electronically recorded information on earth does not cross a bridge that might be termed "the communications gap". And after all why does one need information?

Information for decision making is the mainspring of business and industrial development, the key to our control over the future, the spark that triggers a new idea, an invention or some innovative technique or improvement.

The Information and Research Services (IRS) group at the CSIR provides assistance to the decision-making process of research and development by providing much needed analysed data in the form of management decision support information.

Apart from providing an important liaison function, the IRS is active in the two vital areas of promotion of research and development in industry, and providing back-up to industry and researchers.

To achieve its objectives, the IRS provides management information and financial support to stimulate innovation, offers techno-economic services, encourages and promotes close contact between science and industry through dissemination of information in many ways and, finally, actively promotes and supports industrial research and development projects.

Communication, as has already been stressed, is the key to effective and successful transfer of knowledge and here the IRS plays a major role.

To assist with the exchange of scientific, technical and economic information among scientists themselves and between suppliers and users of scientific and technological information, the Conference and Liaison Group of the IRS organises many scientific and technological conferences and seminars.

Publications are another important means of communicating information and therefore the Publications and Public-

ity Group of the IRS gives special attention to make known latest developments in the field of science and technology by means of press releases, annual publications, periodicals and special reports such as CSIR Services to Industry.

And that is what the Information and Research Services group is all about. Encouraging innovation and industrial growth by providing the precisely selected information required in order to make the right decisions with a full knowledge of the vital implications.

National Electrical Engineering Research Institute

It has been generally accepted in informed circles that if South Africa is to remain competitive in its manufacturing industries, there will be a major swing to robots and automation to enhance operator skills. On the other hand, the promise of electrically driven cars, which it was hoped would create a new industry, has not been fulfilled due to present day battery limitations and the fact that current research is winding down.

It is against this type of background that the National Electrical Engineering Research Institute (NEERI) works closely with industry, sharing success and failure in a dynamic development environment.

The institute's research facilities and development activities fall under the four broad categories of Electric Power, Industrial Electronics, Cybernetics and Micro-electronics. Each of these departments is broken down into a num-

ber of divisions to accommodate specialist activities.

In every sphere, NEERI is well equipped to deal with any problem and has a vast array of specialised equipment at its disposal. Its Power Department, for example, has commissioned comprehensive facilities for high voltage research in the form of an impulse generator with a maximum energy of 380 kJ at 3,3 MV.

Controlled experiments are now being carried out on systems insulation parameters as an extension of the more statistical studies of disturbances caused by lightning discharge. A facility for research on engineering parameters for insulation at higher altitudes is thus available to manufacturers and designers of high voltage equipment.

This facility has been expanded by the acquisition of new equipment for high voltage AC research comprising a 1 000 kV 1 Amp cascade system.

Already, the developed industrial countries of the world have taken major strides into the world of robotics and automation. Trends in this direction are being closely monitored by the Industrial Electronics Department to keep South Africa up to date on all the latest developments.

On the practical side, a research project aimed at developing expertise of importance to local industry has already been started. The aim is to investigate techniques by means of which the design, manufacture and testing of printed circuit boards can be integrated and automated where necessary. It will be carried out in close association with the Cybernetics Department.

People and machines require communication systems and control mechanisms to function efficiently and effectively. Currently the Cybernetics Department of NEERI is concentrating its efforts in the fields of research into the fundamental aspects of

information theory, signal processing and computer technology. During the course of its association with industry, the Cybernetics Department has played a significant role in the establishment of a local mini-computer industry.

Special facilities available includes a twin minicomputer system with a fast array processor for real time analysis up to 100 kHz with the necessary peripherals for data storage, digital and analogue inputoutput systems with facilities for spectral analysis, correlation, real time filtering simulations and other functions.

Among the high-priority projects are the expansion of the high voltage research programme, expansion into computer-integrated manufacture (CIM) and robotics, research in signal processing and computer technology, and finally, expansion in the field of ICs and the use of microelectronics to develop more cost-effective manufacturing.

National Timber Research Institute

The National Timber Research Institute has shown that it is one of the most advanced timber research institutes in existence and has a record that boasts many world firsts. This is the claim of the Institute's chief director, Dr Tony Pizzi.

"And," he says, "this claim is made in a country that is not generally recognised as a major timber producer."

The reason, he maintains, is that because of the fairly difficult timber situation in this country, there has been greater technological impetus to both better control and utilisation through research. Another significant actor is the size of the 1 cal industry which bougs in approximately 6,7% of the country's GNP and provides 11,5% of the jobs in the country.

Among its many successes the NTRI has made a considerable contribution to locally developed tannin-based adhesives. This has led to the export of several million rand's worth of these adhesives per year. Another development has been phenolic

fast-set "honeymoon" adhesives for both fingerjointing and laminating of timber. This has saved the country at least R2-million per year.

In another area, the more exact and efficient methods of stress-grading structural timber developed by the NTRI provide potential benefits to the timber and construction industry which have been quantified at approximately R20-million per annum. An equivalent R20-million a year can be saved by the pulp and paper industry through im-

proved paper drying techniques developed by the Institute.

The NTRI is involved in many developments or projects and Dr Pizzi lists some of the more important ones as:

- The development of the Simsaw and Prolog computer programs for optimising sawing patterns in sawmills.
- The manufacture and testing of laminated pine railway sleepers.
- Piezo-electric stress-grading of wood.
- Development of more effective mining mat packs;

- Development of improved timber preservatives and preservation techniques.
- Improvements in pulp and paper technology and manufacturing efficiency;
- Development of products from waste and biomass.
- New and improved adhesives.
- Development of advanced drying and saw-milling techniques.
- Advanced charcoal

technology.

 Production of woodgas as a viable alternative to liquid fuels.

Essentially, the NTRI approach is a firm balance between fundamental research and applied research.

As Dr Pizzi stresses: "If the two are not combined, they are useless. Empirical research might take 50 years to find something. On the other hand, fundamental research can identify something that has been overlooked or can produce a new idea at any moment.

"If you combine the two then you have the urgency that exists in industry with the scientific depth and originality of ideas that you must have in a research organisation."

National Institute for Coal Research

South African coal differs significantly from that found in the northern hemisphere. For example it contains larger quantities of finely disseminated mineral matter. These differences not only complicate the beneficiation of the local coal, but can also cause particular utilisation problems.

In such circumstances, it is natural that there is an institute at the CSIR—the National Institute for Coal Research (NICR)—devoted to coal research aimed at solving the problems encountered by industry.

One of the practical problems associated with coal is that its size range is deteriorating due to the increasing mechanisation of mining techniques so that more fine coal is being produced.

The question then arises—what can be done with the fine coal? One solution is to blend it with sized steam coal, but this can create combustion problems in some existing boilers fitted with chain grate stokers. These problems are being researched in a 3 200 kg-steam-per-hour test boiler.

A further problem is that large quantities of excess duff and reject coal of high-ash content are being produced which are unsuitable for conventional combustion in commercial boilers.

As a direct consequence, the NICR is working on popularising the technology of atmospheric pressure fluidisedbed combustion. A fluidised-bed boiler has the advantage that it can burn high ash-content coal efficiently, can control sulphur dioxide emission by the addition of dolomite to the bed, and, because it operates at relatively low temperatures (900-970°C), it emits less oxides of nitrogen than conventional boilers.

Potential

In order to demonstrate the potential of the technology to industry, a major engineering company was contracted to install a 12 000 kg steam/h plant as a national facility. The plant with an elaborate data processing system is now in the commissioning stage.

The envisaged five year programme will cover an

R&D phase, to optimise the plant and operating parameters, as well as a demonstration phase. During the demonstration phase the accent will be on reliability under continuous operating conditions.

Although coal is most frequently associated with combustion, this is not the only research area in which the Institute is active.

The Institute is divided into three complementary divisions — Engineering, Survey and Chemistry. The Engineering division, the technological arm of the institute, undertakes contractual advisory and consulting work as well as research.

The washability and mineral matter liberation characteristics of coal are regularly determined by the division, either as a contract service or as a preliminary step towards the beneficiation of bulk samples in the pilot plant sited at Pretoria West.

The 25 t/h pilot plant, having a variety of beneficiation untis, can process large, small and fine coal and is used to determine the type of equipment most suited to produce the best yield of cleaned coal.

The advantages of this pilot plant to the coal industry are obvious, not least of which is the avoidance of expensive trial-and-error approaches to coal preparation.

Supplementary work in the field of coal beneficiation includes the performance of acceptance trials on newly commissioned commercial plant and performance monitoring of existing installations.

The division believes that while the production of gas is an established technology, its application to SA coals needs further research. To this end, it operates a single stage producer gas pilot plant and is researching the effect of coal feed size on the performance of the plant.

In the future, back-up work will also focus on oxygen enrichment of the steam/air blast to improve gas quality.

The division is also equipped to assess the coking propensity of coal in the laboratory and to

produce coke in a 7 kg oven or in two larger 300 kg and 400 kg capacity experimental ovens. It also commands a 2 t/h rotary hearth carboniser for the production of char.

As briquetting is another potential means of utilising fine coal, the division has a pilot plant for conducting briquetting trials. In order to reduce binder costs, the potential of high pressure briquetting is being investigated.

The Survey division busies itself with the study of the physical, chemical, petrographical and mineralogical properties of coal resources in support of both prospectors and other research projects.

Bulletin

It also regularly samples colliery products and the average analysed results are used for the publication of an annual bulletin on the characteristics of the coal produced by South African collieries.

The division is responsible for the issuing of coal export certificates and checks that coal for export is not unduly liable to spontaneous combustion. For this purpose the institute has four 15 t capacity test bunkers to assess the liability of coal towards spontaneous combustion.

In addition to performing contractual analytical services, the division is frequently called upon to act as referee in cases of dispute.

The focus of the research work undertaken by the Chemistry division falls into five basic areas: beneficiation, coal conversion, carbon products, structural studies and coal mining safety research.

In the beneficiation field, the division is assessing the potential of fine coal beneficiation by means of oil agglomeration and the dry destoning of coal using a pilot scale oscillating aerated table. Here the effect of parameters such as particle shape

and size range is being evaluated.

The division is also involved in other projects of importance to industry. One aims at establishing the potential of heat treatment for improving the suitability of local pitches for use at electrode binders.

The Institute believes that a knowledge of the chemical structure of coal is basic to the understanding of coal conversion and a study is underway on the organic structure of SA coal and its constituents. To aid this research the analytical facilities are being upgraded.

National Research Institute for Mathematical Sciences

Beer, banking, cement, wire rope and core mitering would not appear to have much in common, but to the National Research Institute for Mathematical Sciences (NRIMS) these diverse activities represent successful co-operative ventures with South African industries.

From the development of new mathematical and statistical theories and computer software to the solving of technical, physical, socio-economic and ecological problems, the NRIMS renders research orientated services to Government departments, universities and other organisations.

Backed by the CSIR's CDC Cyber 750 and Amdahl 470 V/7, the Institute can use its teams of mathematical scientists to deal with problems arising in the manufacturing and processing industries of the Republic.

Interactive Decision Support Systems

It was its ability to design and develop computerised decision support systems that led to a contract with SA Breweries to undertake this type of work for production planning and profit forecasting.

By September 1983, the project, which began in February of that year, saw SAB evaluating alternative packaging plans with the system. It was used extensively during budgetary planning for 1984/85, enabling planners to evaluate a number of alternative scenarios and devise alternative plans for the improved used of production facilities.

In its capacity as a consultant, NRIMS has also worked closely with a national merchant bank on the development of asset/liability models within the various banks of the group. The bank is now able to

carry out interactive studies to evaluate and quantify various interest rate options and can also study the effects of various portfolio policies in its short-and long-term vulnerability to change of interest rates.

During 1983 the NRIMS designed a random statistical sampling experiment to be performed by the Portland Cement Institute. This involved all major producers in the country.

The experiment, which took place over a six month period, was designed to estimate the relative magnitudes of factors that contribute to variations in the strength of concrete.

These estimates have now been encapsulated in formulae which enable contractors to compute target mean strengths for concrete designs, allowing for variations from different suppliers.

National Mechanical Engineering Research Institute

The National Mechanical Engineering Research Institute is mainly concerned with the development of new concepts and techniques in mechanical engineering, as well as with the development of machines and materials used in industry.

Its activities also involve the design, development and performance testing of equipment and systems. Fields of activity include strength of structures, process development, geomechanics, fluid mechanics, aeromechanics, heat mechanics, tribology and production engineering.

For managerial purposes the institute is divided into nine divisions—
Tribology, Strength Mechanics, Geomechanics,
Fluid mechanics, Heat Mechanics, Aeromechanics, Design and Development,
Production
Engineering Advisory
Services (PEAS) unit and the Mine Equipment Research unit situated at Cottesloe in Johannesburg.

The policy of the NMERI as with the rest of the CSIR is to give advice and carry out investigations of an advanced nature using facilities or specialists not normally available to the consulting firms and laboratories in the private sector. Its general policy therefore is to provide a backup for the private sector and not to compete with it.

It was the pressing need for a division to study the problems of friction, lubrication and wear that prompted the formation of the Tribology division in August 1983. This division is now in the position to assist local industry with problems of lubrication and wear, to monitor the condition of machinery in service and advise manufacturers and users regarding materials for increasing wear life.

A recent recognition of the division's expertise was the authorisation by Lucas, England, for the division to undertake the tribological examination of fuel injection equipment for use in South Africa.

This development means that Lucas fuel injection pumps need no longer be sent to England for wear evaluation — a process which takes from 12 to 18 months before results become available. Evaluation results can now be made within a month of receiving the pumps for investigation.

One of the vitally important areas of research conducted by the division is a programme to monitor the condition of diesel engines using alternative fuels under test in the Heat Mechanics division.

The Strength Mechanics division deals with problems related to the experimental and theoretical determination of stress and strain in materials and components and their strength under loading conditions. Particular problems it deals with are: Stress analysis and testing of materials, fatigue in metals and industrial components, failures in practice and strength of materials and vibration in machinery.

One of the more interesting projects it has been involved in has been an experimental stress analysis on the legs of a drilling rig. The object of the test was to determine in-service loads on the structure of the rig during lowering and hoisting of the drill rods.

In addition the division will carry extensive strainguage tests on failed components to determine the causes of failure. It will also act in a quality control function in carrying out fatigue tests on components.

Stress and functional performance are areas influenced by mechanical vibration and this is of major concern of the division. Often, many vibrational problems can be solved on site and investigations have in the past included the measurement of vibration in truck drive trains, vibration in a structure supporting shaking screens, functional check of a vibration transducer and measurement of environmental vibration.

More exhaustive programmes of analysis and measurement have been carried out on the strain and vibration in induced draft fans, excessive vibration in rolled steel joist structures caused by shaking screens and the modification of a design for a dynamic vibration absorber.

Research into the hydraulic transportation of solids is a growing concern and one in which the Fluid Mechanics division is intimately involved. Currently it is looking into ways of improving the "pumpability" of high concentrate slurries using different concentrations of sodium tripolyphosphate.

It is also involved in a contract to determine pump wear in the hydraulic transportation of iron ore. This research primarily involves comparing the performance of two impellers manufactured from two different types of material.

Other areas in which it is active include investigations into flow in pipes, valves, ducts and other equipment, the hydraulics of pump inlets, rivers and dams and the study of automatic irrigation gates.

The Heat Mechanics division deals with research and services to industry in the fields of thermodynamics, heat transfer and solar energy.

It's activities, expertise and services include:

- Air-conditioning including performance improvements, energy saving and the development of computerised design methods.
- Industrial refrigeration, particularly the chilling and freezing of perishables.
- Performance testing of air-conditioning and refrigeration installations
- The uses of solar energy for heating, cooling, drying and mechanical power generation.
- Heat transfer and the optimisation of heat exchangers.
- Energy conservation which includes heat recovery and heat pumps.
- Heat engines, including internal combustion engines, as well as alternative and suplementary fuels, fuel saving methods and devices.

Work continues apace worldwide into the development of electric vehicles and such is the case with the Design and Development division which recently unveiled its electric car designed specifically for town use.

This latest system uses two fixed displacement

hydraulic pump/motors in conjunction with a fully floating AC electric motor. The transmission was designed for high regenerative energy efficiency and is controlled by a microprocessor.

When slowing, kinetic energy is stored as pressure energy in hydraulic accumulators and used to accelerate the vehicle from rest. This method of acceleration thus reduces the high battery drain associated with battery driven cars and increases its range.

The Mine Equipment Research unit does research and investigations on steel wire winding ropes and the performance and strength of mining machinery, components and structures. This work is largely concerned with safety in mining equipment and the unit is often called upon to test products before they are put on a list of approved suppliers for a mining house.

The unit also operates a non-destructive testing laboratory and about 600 man-hours a year are spent on ultrasonic, magnetic particle and dye penetrant testing of components for industry.

The function of the Production Engineering Advisory Service (PEAS) unit

is to promote the optimum application of technical know-how. South African industry is faced with problems such as low production quantities and poor specialisation and this unit is in a position to improve the efficiency of the use of labour resources and capital by advice and assistance in the application of available technologies.

This process of technology transfer includes inservice training, seminars and courses based on the requirements of local industry.

This practical approach extends to advice on machining and manufacturing problems,

Also, machinery is developed and automation introduced by the design of special-purpose automatic or semi-automatic equipment. This may involve modifications to existing plant and equipment or may require the development and construction of new purpose-built machinery.

Extensive work on cutting inserts has resulted in the production of machining datacards which give optimum cutting conditions for a specific material, detailing cutting speeds, depth of cut, machining and manufacturing problems.

Chemical Engineering Research Group

Staff at the Chemical Engineering Research Group have a disarming ability to simplify a complex chemical process or reaction by describing it in the most basic terms. An example would be the liquefaction of coal, which deputy head Dr Ed Hicks describes as basically taking a carbon atom and sticking on two atoms of hydrogen.

Or, in describing the essence of heat, mass and momentum transfer: "This is really the basis of chemical engineering and all it means is that one has a substance in a particular chemical and physical state and wants to convert it into some other state. Chemical plants are built to do such conversions as efficiently as possible with the minimum energy input.

"Heat, mass and momentum transfer examines the fundamentals of this transfer process."

Such descriptions of a complex chemical process may appear simplistic but

behind them lies the ability to see straight into the heart of a problem, to define it and then solve it by logical means. This approach pays dividends for industry coming to the CERG for advice on a production problem.

"Very often industry may come to us and present us with what they see as their problem, when in fact the problem lies elsewhere. The art of solving problems is to find out where the real problem lies and then tackle it correctly," said Hicks.

Hicks quotes the example of the producer of a fine wax powder who was grinding slabs of wax. The problem was that as he ground it, it started melting and caking up the equipment.

"We went deeper into the problem and asked him why he was grinding this wax and where it came from. It turned out that they were producing slabs whereas they wanted a fine powder. So we came up with a way of producing the fine powder directly, thereby eliminating a process step and saving production costs.

"I think in 90% of our cases people don't really understand their problem and it just helps them to come and speak to us. Because we have such a wide variety of experience we can generally find another approach and eliminate the problem by following another route."

This is just one way in which the CERG provides invaluable assistance and advice to industry. The Group's overall objective is to advance the technical development and productivity of the chemical processing industry in South Africa.

Naturally this objective covers many areas of problem solving for industry such as in the fields of pollution control, catalysis and reactor technology, as well as in operations involving the transfer of heat, material and energy. Special emphasis is placed on the conservation of energy and strategic resources.

The CERG's research, consulting and technical information services cover the broad field of chemical processing technology, from pharmaceuticals and speciality chemicals to petroleum and coal processing.

Furthermore, one of the primary benefits the CERG brings to industry is the wide range of specialised research and test equipment it possesses — equipment that most companies or organisations could not afford or justify. Much of this equipment is available to industry either through contract research or on loan.

Facilities include:

• Semi-technical-scale equipment for the complete handling of liquids and slurries in bulk. This equipment can be operated by the client to ensure the

confidentiality of the investigation.

- Various instruments for the determination of particle characteristics. This includes sieves and microsieves, a Coulter counter, units for X-ray and high G's sedimentation, BET surface area meters, porosimeters and such.
- Instrumentation for the determination of physical properties, as well as differential thermal analysers and thermogravimetric analysers.
- Laser-Doppler, ultrasonic and other velocity probes.
- Autoclaves and gradientless reactors.

It is rarely that one finds such a concentration of expertise such as which exists at the CERG with 20 chemical engineers, eight chemists, one physicist and six chemical and two chemical engineering technicians. These specialists come from many fields of industry and from all parts of the world.

"Because of our broad experience in a wide variety of fields, we are able to look at problems with a fresh perspective and very often come up with unique solutions to seemingly insoluble problems," says Hicks.

This forward looking research group takes its role of serving the national interests of South Africa very seriously as witnessed by its current research into coal conversion. The Group has

a number of other special projects are on the go, especially in the field of drying.

"In the field of coal drying we are examining the use of steam at high pressures and temperatures instead of air for drying. This is not a new technique but has never been used extensively," said Hicks.

Air drying is a very expensive undertaking and uses a lot of energy. Steam drying offers significant energy-saving possibilities. What is particularly useful about steam is it can be recycled and the energy recovered.

"There is a lot of interest in industry in anything involving energy, after all, the greatest resources in this country are people, energy and water."

The CERG has an agreement with a manufacturer who is interested in manufacturing and selling steam dryers. The company will be donating equipment to the Group to be used in its development work.

A related project which the Group would like to get off the ground is the steam drying of black liquor, an effluent from the pulp and paper industry. If this hazardous waste material could be dried by steam it could be incinerated more efficiently and a number of energy and water."

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Apart from these extremely valuable research projects, the CERG is involved in other services to industry such as pollution control and measurement. On request, it measures emission rates of dust and toxic gases from chimneys and evaluates such pollution control equipment as bag filters, electrostatic precipitators and cyclones.

Another service is provided in the form of an online information system through which some 300 files from the US, England, France, Germany and Italy can be accessed. Enquiries that are dealt with can be as simple as the heat capacity of ammonia at 1 300°C, or the complete design of a chemical plant from known parameters.

Users of the computerised information service pay only the cost price.

Other specific services available from the CERG include:

• The determination of the

physical properties of fluids under process conditions, and vapour-liquid equilibrium determinations.

- Particle characterisation including particle and pore size distribution, surface area and shape.
- Determination of drying characteristics, recommendation of dryer type, and the semi-technical-scale drying tests on spray, rotating kiln, fluidised bed and other dryers.
- Computer-aided design, costing and rating of heat exchangers and the evaluation of air as an alphysical properties of fluids under process conditions, and vapour-liquid equilibrium determinations.
- Particle characterisation including particle and pore size distribution, surface area and shape.
- Determination of drying characteristics, recommendation of dryer type, and the semi-technical-scale drying tests on spray, rotating kiln, fluidised bed and other dryers.
- Computer-aided design, costing and rating of heat exchangers and the evaluation of air as an alternative to water as a cooling medium.
- The formulation, preparation and characterisation of catalysts.
- The determination of design data for chemical reactors.
- The evaluation of equipment for the separation of solids from liquids and of liquids from solids.

South African Wool and Textile Research Institute

A recent example, which demonstrates the benefits which industry can derive from using the services and technologies developed by the South African Wool

and Textile Rearch Institute (SAWTRI), is one in which SAWTRI and a leading textile manufacturer in South Africa, conducted joint trials on the Institute's recently developed novel patented process for the continuous shrink-resist treatment of wool tops.

The process is simpler and cheaper than other shrink-resist processes and also has several technical advantages. It was subsequently licensed to the firm in question and later to another.

Other examples include developments such as the SAWTRI yarn friction tester, which is widely used for quality control purposes in the industry (an improved model of this in-

strument is now available) and the SAWTRI SLD monitor for on-line monitoring of changes in silver linear density (licensed to an overseas manufacturer).

Calibration of textile instruments.

An important service offered by SAWTRI is the calibration of various specific textile instruments. These include airflow instruments for the measurement of fibre diameter and the SAWTRI Yarn Friction Tester. The Institute does not, however issue

any certificates.

The Institute can assist industry in checking the accuracy of various textile instruments by using calibration samples in its possession. Examples of such instruments include those used for testing the fineness, maturity, length and strength of cotton fibres as well as those for measuring the fineness of wool and mohair.

Training

Certain facilities are made available from time to time to enable machine manufacturers to conduct short training courses, mainly at operator level. Arrangements are also made upon request to introduce industry to new technologies by arranging demonstrations periodically.

SAWTRI also provides facilities for the promotion of post-graduate studies. All enquiries regarding the above services should be addressed to: The Chief Director, South African Wool and Textile Research Institute. PO Box 1124, Port Elizabeth 6000; Phone (041) 53-2131 ext 111; telex 24-3203. Telegrams: SAWTRI.

SAWTRI Research Projects

The South African Wool and Textile Research Institute (SAWTRI) offers a comprehensive range of specialised services to fibre producers and the clothing and textile industries.

Research is carried out on wool, karakul, mohair and cotton. Studies cover the individual fibre types on their own as well as in blends of these. Blends of the natural fibres with synthetic fibres are also studied.

The Institute is believed to be unique in the world of textile research to the extent that it has an on-going research programme involving all these fibres.

SAWTRI is a self-contained experimental textile factory equipped with full-scale machines cable of processing almost any staple fibre from the raw state to the finished garment. The factory operates in conjunction with well equipped chemical, physical and testing laboratories.

The services which are offered by SAWTRI fall broadly into:

- Contract research.
- Joint trials with industry.
- Trouble-shooting.
- Specialised testing.
- Instrument innova-
- Information.

Contract research is undertaken in the areas of raw fibre scouring and carbonising; shrink proofing; woolen processing; long staple processing on the worsted system; short staple processing on the cotton system; textile physics; textile chemistry; dyeing and finishing; knitting; weaving; clothing technology and instrument innovation.

The Institute undertakes joint trials with industry from time to time, particularly trials involving new technologies, or machinery acquired by SAWTRI, which the industry has not yet had the chance to evaluate for itself.

It also has expertise in many fields of textiles to assist industry with trouble-shooting and problem solving, and handles a large number of enquiries from industry every year. Facilities also exist for a wide range of specialised fibre, yarn and fabric tests, chemical tests, and tests involving processing performance.

Testing services include fibre tests for fineness, length, strength, compressibility and composition; raw wool and mohair tests for clean yield, grease content, vegetable matter, crimp, suint content; and cotton tests for micronaire, maturity, trash content.

SAWTRI has a small but well-equipped and highly skilled department dealing with the development of textile instruments, as well as improvements to existing ones.

It recently developed a machine for routine automatic testing of the length and strength of raw wool. This instrument is

software controlled and provides a print-out showing the cross-sectional profile of the staple as well as information on the staple length and strength characteristics. Such information could supplement the Objective Measurement Programme to characterise raw wool lots more complete before sale.

Services in the information category include information retrieval, interlibrary loans, photocopying, microfiche reading, books and periodicals.

Regular SAWTRI publications available to interested parties are: SAWTRI Bulletin, SAWTRI Digest, technical reports and special reports. A shrink-resist process for wool tops which is consid-

wool tops which is considerably cheaper and easier to implement than traditional processes, is arousing keen interest in world textile circles.

Patented in April last year, the shrink-resist

proces was developed by the SA Wool and Textile Research Institute in association with a a leading South African textile manufacturer. It was subsequently licensed to the company and later licenced by the SA Industrial Development Corporation, which holds the patent, to a second local manufacturer.

A further licence has now been granted by SAIDCOR to a textile manufacturer in Europe where patents are pending.

In collaboration with the International Wool Secre-

tariat, SAIDCOR is negotiating with textile manufacturers in other parts of the world with a view to introducing the technology on a much wider scale.

A testing instrument to determine differing lengths and fibre strengths by computer analysis has been developed by the SA Wool and Textile Research Institute at its Port Elizabeth laboratories.

Following upon an initial evaluation by the South African Wool Board, the test instrument has undergone several refinements to its software control and its memory capacity has been enlarged significantly, enabling it to handle more sophisticated and complex data analysis.

A number of experiments have been carried out on wool staples of differing lengths and strenghts. It has been shown that in respect of length, there is excellent correlation (97% fit) between the instrument-measured values and those obtained by the traditional hand method.

Furthermore, the staple

profile, as recorded by the instrument, provides a good guide to where the weakest or thinnest place in the staple occurs and particularly (when there is a weak place or tenderness), where the staple can be expected to break under stress.

Information regarding the design and operation of the instrument, together with some experimental results, are scheduled for release at the next meeting of the International Wool & Textiles Organisation (IQTO) in Paris this year.

Spectrometric Oil Analysis Programme

Wear and tear in engines, gear-boxes and other mechanical parts can be costly and often dangerous. The CSIR has done a good deal of research, working closely with industry, to find the answer in SOAP, an acronym for Spectrometric Oil Analysis Programme.

The story of SOAP began in 1957 when SA Transport Services (then SAR) introduced its new diesel locomotive service and was looking for ways to detect wear, reduce breakdowns and oil consumption, and generally to improve maintenance procedures.

The CSIR developed methods whereby a sample of oil, which contained minute particles of wear metals, or even foreign matter such as water and dust, is subjected to an electrical spark.

The radiation emerging from this spark is analysed by means of an optical spectrometer and the presence of various metals detected and their quantities measured with a high degree of precision and sensitivity.

By regularly measuring the oil from various

components, the wear rate and pattern may be determined.

Unusual wear, which usually leads to failure, is quickly picked up and preventative steps can be taken.

The technique was improved with time and modern equipment, and applied to the SAA fleet and later in the SAAF, where it has paid for itself over and over again.

The CSIR was instrumental in using the method for road vehicles and it is here that some of the major benefits to industry have come to light. Commercial operators of vehicle fleets can plan their whole maintenance programme on oil analysis.

Breakdowns have been cut to a minimum and with several companies, eliminated, running costs reduced, driver abuse of vehicles monitored, and much longer lifetimes of oil usage achieved. Several commercial firms are now offering an oil analysis service.

National Institute for Transport and Road Research

With the incredible developments that have taken place over the last two centuries, it seems strange to think that the construction of roads has hardly changed. The "foundations" laid by Thomas

Telford and John Mc-Adam provided a solution that has stood the test of time.

Their method of laying a base foundation of large rock, an overlay of smaller stones and then a surface of gravel bound with clay or bitumen and rolled smooth was so successful, that apart from a few innovations in surfacing materials, it has remained substantially the same to the present day. The only significant parallel advance has been the concrete highway.

But the pioneering work of these two Scottish engineers did not foresee the massive load forces that would be at work in the late 20th century as ever heavier vehicles brought increasing stresses to bear.

In countries around the world, research has constantly attempted to keep pace with the increasing demand for more and better roads. With its vast distances and need for longhaul commercial and private vehicle traffic, South Africa has made significant progress in pioneering new road building techniques and through the National Institute for Transport and Road Research (NITRR) has made important contributions which are recognised and accepted world wide.

Essentially the NITRR is actively involved in three important activities under the broad categorisations,

transportation, road construction and road safety.

Under these major headings various groups have been formed to research and find practical solutions to problems that beset provincial, municipal and private sector transportation authorities that do not necessarily stop at roads but involve almost every type of transport and infrastructure. The NITRR brief spans every aspect from improving public bus usage to recycling of road building materials and computer modelling bridge design.

The Pavement Engineering Group is responsible for development of new methods for the analysis and design of road pavements and for testing and evaluation of designs and materials at laboratory and emperical levels. One of its prime concerns (and an area of significant achievement) has been to develop testing methods and equipment to aid its work.

It has, for example, pioneered a novel method of pavement testing by development of a mobile Heavy Vehicle Simulator (HVS). Other important projects include the devel-

opment of a Traffic Axle Mass Classifier which measures the distribution of axle loads for design purposes, a Traffic Profile Classifier which divides vehicles into three distinct groups, and a Traffic Data Logger which measures and records vehicle information such as number and spacing of axles, load per axle and speed.

While many more words could be written on the various groups at work within NITRR to improve the national transport infrastructure, mention must be made of the work of the Bridges Group whose primary aim is to investigate methods of analysing, designing and maintaining road bridges. The Group's work is largely directed towards developing computer programs which will save manpower on design and analysis and provide engineers with more time for other equally important -work.

In setting up the sophisticated programs the group has divided highway loads into four categories—legal, abnormal, very heavy and superloads.

Heading the achievement list is a comprehensive suite of programs (known as the GSC system) for checking the ability of highway structures to carry superloads. It is ideally suited for the investigation of abnormal load axle group loadings and can be adapted for design of new bridges. While this program was originally set up on large mainframe computers, it is now well within the realms of the desk top PC and the Bridges Group is in the process of converting various programs for use on the HP System 1000 mini computer which is in service with all Provincial Roads Departments as well as the Department of Transport.

The volume and value of work being carried out at NITRR is difficult to quantify, but there is no doubt of its exceptional value to the nation.

A recent example is the major cost savings achieved by methods developed to recycle existing road surface materials where up to 30% can be utilised in new surface mixtures. This has been tried with success on the 24 km section of road under construction between Harrismith and Van Reenen in Natal.

National Institute for Informatics

A new institute — the National Institute for Informatics (NII) — was recently established at the CSIR by amalgamating the Centre for Scientific and Technical Information (CSTI) and the Centre for Computing Services under one body.

The establishment of this

new institute indicates recognition of the increasing importance and mutual dependence of information and computing technologies.

The CSTI provides information and library services in the field of science and technology not only within the CSIR, but also on a national level, particularly for industry. The information service makes use of computerised access to a number of data banks in South Africa, the

USA, UK and Europe.

The CCS provides computing services for CSIR laboratories and institutes and for approved research projects at universities, via a country-wide computer communication network.

"The re-grouping of these insitutes into the NII also reflects the rapid evolution of both computing and information technology as a factor both in scientific and industrial development," said chief director Mr V A Shaw.

The word "informatics" is derived from the French "informatique", and encompasses the study of the processing and communication of information by means of information technology.

In turn, information technology includes the acquisition, processing, storage and dissemination of vocal, pictorial, textual and numerical information by means of computers and telecommunications.

National Building Research Institute

Finding a relationship between the work of the National Building Research Institute (NBRI) and the engineering and manufacturing industry is not a hard task because of the many areas of common interest.

This relationship extends from aiding in the design of better plastics for use in the building industry, to energy management. improved environmental working conditions, corrosion, water control and low cost housing for South Africa's fast growing population.

The corrosion work done by the Organic Materials division of the NBRI is an important case in point with a successful record of problem solving. Such a problem was the early corrosion of galvanised steel piping which has now been largely solved.

This problem arose when the method of manufacturing galvanised piping was changed. Until 15 years ago all mild steel pipes were drawn from solid billetts of steel, but this then changed to a system of bending and then seam welding sheet metal to form lengths of pipe.

Unfortunately, the new pipes corroded much faster than the old pipes - often being penetrated in as little as 18 months. The NBRI found that in 90% of cases the pipe wall penetration was associated with the seam weld.

Research established that the preference for corrosion along the seam was largely because of stresses built into the pipe when it was bent and welded. The result of the research is that now once the pipe has been manufactured the outside joint is scarfed off and the pipe then put through a heat

treatment process to anneal the stresses in that pipe.

The result has been a tremendous improvement in the life of the pipe. The size of the problem cannot be overestimated when one takes into account that the Transvaal Provincial Administration alone spends R25-million a year on replacing corroded galvanised steel pipes.

Organic materials — the focus of the Organic Materials division - includes all materials which contain a major proportion of carbon. Under that heading fall the plastic, rubbers, paints and sealants used in construction.

On the corrrosion side the division looks at the electro-chemistry and metallurgy of metals and how to protect these metals against corrosion by either painting, rubber lining or various plastic coatings.

Involvement in these fields can take many forms, for example the division was involved in the evaluation of 3CR12 and Cor-Ten for the construction industry. Currently it is also aiding industry in assessing problems involving the corrosion of coilcoated steel roofing and cladding materials.

A recent milestone in the corrosion field was the publication of 10-year corrosion test results on a variety of metals. From these results an architect or engineer can tell with a greater degree of confidence how different metals will perform in various parts of the country, and plan suitable anti-corrosion measures.

Turning to the plastics side, the NBRI is in rather a unique position to co-ordinate the research and

other needs of the three major groupings - the primary plastics producers, the converters, and the construction and building industry.

In such a role it is often involved in the development and testing of plastics for use in construction and

industry.

The Highveld, South Africa's industrial giant, has unique climatic conditions which spell ruination for plastics even though these have successfully been used overseas in such applications as guttering and window frames.

In this light a joint research project with AECI to develop rigid PVC window frames is currently underway. The potential benefits of the new plastics will not be limited to window frames but will be applicable to all outdoor applications.

This project came about because of the high UV incidence and violent hailstorms on the Highveld. Excessive UV makes standard PVC plastic brittle which, when taken with hailstorms which are usually associated with a drop in temperature, means a shorter lifespan than that found for example, in Europe.

The research involves stabilising the plastic against UV radiation and adding impact modifiers to make it more plastic. This project is now coming to fruition and within six months to a year AECI with a number of design concerns should be bringing on to the market a window frame designed specifically for South African conditions.

The division has also had considerable contact with

the mining industry in the rubber lining of leach tanks for the uranium and gold mines, conveyor belting rubbers and, for the pulp and paper industry, in filter press failures. It does not see this involvement as ideal but accepts there is no other body doing work in this particular field of rubber and plastic technology.

The NBRI's expertise in rubber technology has naturally also been used to the benefit of the construction industry, specifically in the development of bearing pads for long span bridges and in the rubber lining of dams and reservoirs.

Since the closure of the Paint Research Institute in Durban in 1973 the NBRI has also assumed responsibility for this area.

The institute assists in the building up of a paint system which involves the interaction between the substrate and the primary and secondary coat, the weathering properties, and various other aspects of paint technology.

The drought came very unfortunately from the country's point of view but from the NBRI's projects point of view it has had one wonderful effect in that it has woken industry and the public to the fact of water conservation.

Indeed, water conservation is an area that the NBRI sees of vital importance to South Africa and it has spearheaded the drive for household conservation. Developments have included a revamping of the standard household flush valve - the so-called Beta valve — and placing on the market of a new generation of bottom flush valve, a good example of close co-operation with the plumbing manufacturing industry.

The NBRI realises the wastefulness of the standard household WC flushing system and is working with the Water Research Commission in investigating and evaluating the performance of the fittings on the market.

Gradually it is aiming towards a system performance evaluation as opposed to a component evaluation where it can evaluate the efficiency of whole systems and establish the hydraulic criteria of components. Once this work has been completed maximum efficiency can be obtained by matching a

component of a certain rating with another of a similar rating.

Improved working conditions can result in significant productivity improvements and the Environmental Engineering division can be called in as consultants in the ongoing drive for productivity in industry.

A number of factors vitally affect good working conditions in factory design. Among these factors are better temperature control, better lighting, noise control, air quality, fire protection and better facilities to promote job satisfaction among the workforce.

Consequently the NBRI

has been, and continues to be, involved with the Department of Manpower to make the new Machinery and Occupational Safety Act into what it feels to be one of the best and most progressive pieces of legislation in the world.

Other projects and fields of expertise the NBRI is involved in are:

- Development and constant research into low-cost housing. This area because of the pressing need for housing is one the Institute's first priorities.
- Research into new methods of evaluating the durability of bricks with a view to revising brick specifications.

• Research into the use of plastics in hot and cold water service piping.

- Building regulations and performance criteria. This includes the evaluation of products, components and systems as a preliminary feasibility study service to manufacturers and also for full reports to the Agrement Board on applications for Agrement certificates.
- The development of low-cost solar water heaters as an adjunct to the work being done into low-cost housing.
- The evolution of test methods which once accepted are incorporated by the SABS into its standard test methods.

South African Inventions Development Corporation

What happens if you have an idea or prototype for a totally new product design which has all sorts of potential benefits for local industry, but you do not have money to carry the development further?

One thing you might do is approach the South African Inventions Development Corporation (Saidcor) for funds to help you develop the design to the point of manufacture and to aid in obtaining a patent or finding a manufacturing partner. Such funds might take the form of venture funds or technology licensing.

In the case of venture funds, Saidcor shares the risk of the venture with an industrial partner wishing to develop new products or processes. With technology licensing, it takes the major responsibility for the commercial exploitation of the invention.

More often the involvement of Saidcor takes the shape of technology licensing which is the commercial exploitation of an invention. These inventions come from Government research organisations, within the CSIR, universities and the private sector.

Saidcor will acquire ownership of the invention, finance all patenting and licensing and where necessary, assist with further development costs.

However, this capital is not provided for just any idea. There are criteria involved.

Projects that would qualify for Saidcor funds are: those for which there is a commercial need; those intended for export or to replace imports; the adaptation of imported technology to South African conditions; that it would create new employment opportunities; the development of improved processes or methods of production.

In all these cases, the primary recommendation is that it is of national or strategic interest. Consideration is also given to projects that involve evolutionary rather than revolutionary advances.

A recent development has been the introduction of joint South Africa/Israel technology transfer and development funds for companies wishing to transfer technology to or from Israel or wishing to further develop technology acquired from Israel.

In 1984 Saidcor increased its investment in inventions development projects to R4,6-million—or about R1,1-million more than in 1983. At the same time income from royalties, the major source of income, was R1,16-million.

Some of the projects in which Saidcor is involved either through the provision of venture funds or the technology licensing scheme are:

• The Tamhe radial hydraulic motor which has already made its first sales. The low-speed high-

torque radial hydraulic motor offers the advantages of high mechanical efficiency, reliability, easy maintenance and low overall cost.

Costs are kept low because the motor is adapted to direct coupling to the input drive shaft of the driven machinery so that the usual intermediary gearbox is eliminated. Conceived for the sugar industry by a small company, Tamhe, it is said to have applications wherever very low-speed hightorque requirements exist, such as in mining and materials processing.

◆ An invention whereby the waterproofing of communications cable is achieved by incorporating chemically treated yarn with the insulated wires when the cable is made. When water enters the cable, the material on the treated yarn swells and prevents further ingress of water.

Currently, a 5 km length oc cable-produced

by ATC is being field tested by the Post Office. Saidcor has also started approaching foreign companies with a view to granting licences for the implementation of this technology abroad.

• The recycling of old asphalt road material is

being developed by the National Institute for Transport and Road Research (NITTR). In the course of this work the NITTR has designed and built a novel 1 t/h pilot plant which is said to offer a number of advantages over existing technology. As a first step in the de-

velopment programme a 20 t/h plant has been designed and built by Conaph Equipment Services which has a licence agreement with Saidcor to manufacture and sell plant incorporating the patented design principles.

• Other projects are the selective cultivation of al-

gae to reduce the phosphate and nitrate content of effluent; an interlocking composite cardboard fruit box; a revolutionary disc-rotor motor which can theoretically offer a 30% performance increase over standard disc motors; and the Scheffel highspeed bogies.

National Institute for Water Research

The common or garden guppy (Poecilia reticulata), has become the unsung "hero" of environmentalists in much the same way that canaries were the unfortunate fall guys in past years in coal mines.

Unlike canaries however, the guppies are carefully monitored and removed from dangerous pollutants before any serious damage is done.

Use of biological monitoring of industrial pollution in rivers is just one of the many activities of the National Institute for Water Research (NIWR).

Biological systems employing fish, monitor the physiological and behavioural responses of the living creature by using an ultrasonic technique developed by Dr W S G Morgan of the NIWR, and P C Kühn of the National Electrical Engineering Research Institute and is presently employed to monitor and control the effluent discharge of SAPPI Kraft Ltd's Tugela Mill.

Another major user of NIWR services was Mooi River Textiles. In the efforts to curtail pollution of the surrounding rivers, investigations led to proposals for an extended aeration activated sludge system followed by a series of ponds to treat a combination of municipal sewage and textile mill effluent. This system has proved highly successful.

The NIWR is concerned with the development of technology aimed at maximum utilisation of this vital resource. Its remit includes water pollution research and its services to industry advice on water housekeeping, reduced consumption and effluent treatment. It often acts as an intermediary between industry and the authorities

The Institute undertakes environmental impact studies to predict long-term effects of certain pollutants, develops technology for water reclamation and studies the disposal and possible re-use of sludges and solid wastes.

Its expertise ranges from chemistry, microbiology and limnology (physics, chemistry and biology of freshwaters) to chemical and sanitary engineering. It encompasses ongoing practical research work in many spheres.

Turning to continuing drought conditions, salts and concentrations of other pollutants are posing serious threats to both industry and the farming sector. Industrial cascade systems have been actively promoted and perfected in some industries to use in-

creasingly polluted or dirty water for less critical purposes down the process stream, but ultimately the water must be recycled where possible. This entails the use of many techniques which are still far from perfected or otherwise expensive at this stage of development.

Electrodialysis systems that separate ions in solution by selective diffusion through semi-permeable membranes under an electromotive force is one very promising line of research and has proved a practical answer in many applications.

Absorption of pollutants in water by activated carbon is another area where facilities are available for research and continued studies are taking place in ion exchange, sludge dewaterability testing and bio-monitoring.

National Accelerator Center

Chief Director of the CSIR's National Accelerator Centre, Dr D Reitman, sees an exciting and profitable future in the field of particle acceleration. And the National Accelerator Centre, which was set up in 1977, is available to scientists for basic and applied research using particle beams, particle radiotherapy for the treatment of cancer and for supplying accelerator-produced radioactive isotopes for nuclear-based medicine, industrial processes and pure research.

The NAC operates several accelerators. In Pretoria a 25-year-old 16 MeV deuteron cyclotron has been used for many research projects, but is today fully committed to radio isotype production, radiobiology and the treatment of cancer with fast

The 16 MeV Van de Graaff accelerator at Faure is being used for basic research in physics and nuclear analytic chemistry. It also serves for applied research involving surface analysis and the interactions between ions and solids as well as for research into nuclear medicine and the life sciences.

Among the latest additions to research capability is South Africa's own Separated-Sector Cyclotron now in its final construction stages near Faure in the Western Cape. This variable-energy machine will be capable of accelerating protons to a maximum energy of 200 MeV. This means in effect that the protons are accelerated by voltages totalling 200million.

As many industrialists, not associated in any way with nuclear physics, might well ask, "what does all this equipment do and produce?"

Of course the use of radiation in medicine for the bombardment of cancerous cells has had wide publicity, but the irradiation of a wide number of materials is having some interesting effects. The NAC also plays a vital role in the calibration of gamma-ray monitors and dosimeters to recognised AEC standards and the accurate measurement of radioactivity.

Even gold miners are benefitting from work done by NAC. Production of radioisotopes at the Pretoria cyclotron has enabled in situ detection of gold underground and obviated the need for extensive sampling and chemical analysis. Other isotopes are being used for thickness and moisture measurement, flow studies and tracer applications.

The sort of work that can be done with atomic and nuclear techniques is hardly known to the layman. Perhaps a few examples would not be amiss.

Non-destructive analysis, especially of rare or hard-to-obtain specimens is one very important facility. The Van de Graaff accelerator and its related equipment can sample

down to trace elements at parts per million levels and has been used for this type of analysis in metals, ceramics, alloys, objets d'art, pollution samples and biological and archeological matter.

Then, of course, there are a wide number of standard applications such as surface depth profiling of thin films, thickness measurements in moving processes, activation of metal wear parts to measure wear or corrosion.

In more advanced work with lasers, material hardness and resistance to friction have been achieved and surprisingly glassy types of metals have been produced. Doped semiconductors are another area where bombardment under controlled conditions shows promise of products such as cheap solar cells.

The fields of nuclear and atomic physics show no sign of slowing or ceasing to produce the modern miracles the world has come to expect.

CSO: 3400/679

CSIR RESEARCH CUTS SLATED

Johannesburg MINING WEEK in English 16 Jan 85 p 1

[Text]

THE private sector must take a share of the responsibility for budget cuts, totalling some 15 percent, which are threatening the future of many research projects planned or underway at the CSIR, according to Dr D F Toerien, chief director of the National Institute for Water Research (NIWR).

In response to the clamour for a reduction in Government spending, the President imposed cuts averaging 7,5 percent on the running costs of most public institutions about three months ago.

Further cuts of eight percent on staff expenses across the board are under consideration and Dr Toerien has called on the private sector to demand that these be imposed in a "responsible manner".

"Cuts are necessary—but it is ridiculous to equate expenditure on vital research with that on, for example, subsidies to university choirs," he told Mining Week.

"Water supply is the most limiting factor to South African development.

"If our present demographic trends are maintained, we will have exceeded the carrying capacity of this country's water resources before the middle of the next century.

"The damaging effects of the current drought should provide ample evidence of the strategic importance of water research — yet in view of the cuts I am finding it hard to believe that South Africa is taking the

situation seriously.

"In fact, since total national expenditure on water research is only about R25 million, it should be increased to bring it in line with expenditure on other strategic activities," he said.

Dr Toerien said the first round of cuts had already affected the running of a number of his institute's pilot plants.

For this reason, although the second round of cuts had not yet been confirmed and it was not certain whether they would affect the NIWR, he called on the Government to apply cost saving measures rationally.

"Each year, South Africa's population increases significantly and, with it, so do both the demand for water and the quantity of sewage effluent for recycling."

Dr M S Hunt, chief director of the National Mechanical Engineering Research Institute at the CSIR, said he was less anxious about the proposed cuts, but agreed that they could, if brought to bear on his institute, affect the future of a number of planned projects.

"It's to be hoped that the authorities will take into account that the CSIR already runs a tight ship in terms of productivity," he said.

"Committees meet regularly to monitor the progress of projects underway, and to discuss the development of new projects.

"So our very efficiency makes us vulnerable to such cuts."

cso: 3400/679

CSIR ECONOMIC BENEFITS, SERVICES, CONTACTS REPORTED

Johannesburg ENGINEERING WEEK in English 31 Jan 85 pp 18, 21

[CSIR Special Survey]

[Text]

by the institutes on expected benefits (ie additional income and savings for the country) accruing to companies and communities if the full benefits of recently completed work by the CSIR are realised. The figure? R680 625 000 a year.

This amount is based only on instances where estimates on quantified benefits are available. It does not include benefits which have not yet been made available or quantified, nor does it include estimates on figures where it is not possible to quantify benefits.

The latter include benefits for which figures on the additional income or savings derived from research and other scientific and technological activities and services are not available or where such benefits are of a non-economic nature.

Calculations include benefits from a large variety of areas such as building research, road and road safety research, water research, technological and industrial research and energy related research.

Since its inception in 1945 the Council for Scientific and Industrial Research has become an integral part of the scientific fabric of the nation. But in all its years of existence just how much has this complex multi-disciplinary organisation contributed in terms of solid economic payback?

This is the sort of question dear to the hearts of Cabinet Ministers and newsmen alike and not surprisingly a preliminary quantification was undertaken by H P "Hoffie" Hofmeyr, head of Research Economics in the Information and Research Services.

Rather like Sir Isaac Newton, determining the value of gold in the 17th century, the resulting figures depend on many factors, variables and assumptions which will have to be carefully equated in realistic terms to provide the full picture.

The tentative figure for the overall gross benefit anticipated was, however, derived from figures supplied

Services Department

Keeping pace with the ever growing needs for office space, laboratory accommodation and providing a diversity of very highly specialised services for scientists and technicians is no easy

At CSIR it falls to the Estate Service Department to provide its own particular brand of expertise, without which the vast complex in Pretoria could not function.

The ESD is responsible for the provision of accommodation and services to the rest of the CSIR. In order to meet its obligations, ESD arranges for the design and construction of new facilities and additions and alterations to existing buildings, the supply of electricity, water and compressed air, the provision of telephones, the repair and maintenance to buildings and services.

security services, cleaning services and catering services to meet the needs of the research groups.

While the Department uses architects and consulting engineers for the final design of buildings and facilities, the interpretation of the users' requirements into a brief for the consultants is carried out internally.

When reading the papers on the activities and services offered by the institutes and laboratories of the CSIR, it is well to remember that the back-up accommodation and services are provided and maintained by the Estate Services Department.

Based on its practical experience, the Department is able to offer assistance in the design of laboratory and testing facilities, the creation of specialised conditions and the provision of specialised services.

For any industry or institution wishing to make use of CSIR services it is essential to deal with the right people in the right department or institute. Failure to make the right connections can lead to many problems and may end in dissatisfaction on both sides.

As a first step, interested parties are invited to write or telephone for a highly informative booklet which lists the names of all institutes and departments, giving a broad outline of function and services available, together with the titles, names and extension telephone numbers of all senior liaison personnel.

The CSIR — Organisation and Activities is available from The Publishing Division, CSIR, PO Box 395, Pretoria 0001; phone (012) 86-9211 extensions 4062 or 2188; telegrams: NAVORS; telex: 3-630.

cso: 3400/679

CSIR PRESIDENT ON TECH CHALLENGE

Johannesburg ENGINEERING WEEK in English 31 Jan 85 pp 18, 20

[CSIR Special Survey]

[Text]

Being the President of the Council for Scientific and Industrial Research is, in many ways, like being Principal of a University. It is certainly a function of co-ordination, guidance and administration. A working post without doubt, that requires a man of diplomacy. But more than that, it is a post that demands a man of vision.

Man at the helm Dr Chris Garbers, is certainly that, and one can only be impressed

by his grasp of everything the CSIR stands for, its position in the life of South Africa and its role in a dynamic future.

For Dr Garbers, the CSIR represents a key to wealth that can help provide the jobs required by an ever growing population in an increasingly competitive world.

It is the Research and Development laboratory devoted to industries of the southern African continent and a major bridge builder to science and technology world wide.

In an exclusive interview Dr Garbers gave some off-the-cuff answers to several key questions.

How does he see the future role and direction of the CSIR in relation to industry?

"If industry wants to stay competitive," he answered, "it has to keep pace with the industrial nations on a high level of science and technology. This is where the CSIR can play its role of keeping people moving on the cutting edge of development world wide.

"So if I look to the future, I would say industry is going to become more technologically advanced and there will be a greater need for organisations such as the CSIR. Within the CSIR we will have to strike a healthy balance between the applied and fundamental sides of science and technology. By involvement in fundamental work and with the necessary sensitivity, people will be in an excellent position to make meaningful contributions to the applied side.

"The problems which will confront us in the future will be far more complex and difficult to solve than those we have had to face before.

"Consequently, it will not be the task of one individual anymore, but a multidisciplinary team approach to problem solving by mobilising the best available expertise on a national basis."

Historically, Dr Garbers pointed out, the CSIR has worked closely with the universities in the sciences and applied sciences and this has built up a good deal of expertise and research capacity. Many major challenges are now tackled as joint development projects between the CSIR, the universities and industry and he foresees a strengthening of this approach in future.

EngineeringWeek asked Dr Garbers what are the most significant areas for research? Does South Africa have any natural resources other than minerals that she can exploit?

This is a difficult questions to answer, admitted Dr Garbers, due to the fact that this country is a high-technology society caught between the First and Third worlds with excessive demands for development.

"Every country of the less developed southern hemisphere is trying to sell products in the advanced markets of the northern hemisphere — predominantly products such as food, bulk products or minerals from their natural endowment.

"In consequence, buyers can be selective, resulting in much competition and very competitive prices.

"Our only hope here and an excellent point of departure," he concluded, "is to add value to the basic commodity which we already successfully market by further processing".

Essentially Dr Garbers sees invention and ingenuity as the key to industrial export success. He states that epoch-making scientific discoveries which revolutionise scientific disciplines are of rare occurrence.

Consequently the scientific principles are largely unraveled and the knowledge at the disposal of everybody.

World wide industry endeavours to put these principles to work to its own advantage. For those who can compete successfully rewards were high.

Drawing parallels with countries like Israel he feels that the Republic will have to find more areas of innovative technology where it can carve an exclusive niche such as Israel has done, for example, with advanced printing and medical equipment as well as in the area of electron-

ics.

"It is ingenuity that will keep us competitive in the future," he maintained. "This comes back to individuals who can think creatively and innovatively in such a way that they are a step ahead of other people".

South Africa cannot ever expect to supply all its own technological needs and hence work in isolation. It must move closer to the world community and therefore remain competitive within it. This fact of life brings problems in its wake

"We have to earn money in world markets," Dr Garbers pointed out, "to purchase what we cannot produce ourselves. One way is by assisting our neighbours in advancing technologically.

"Another way is by being cost-effective and quality-competitive in overseas markets. This is where science and technology can make an input. I am convinced that the areas where we now make money must be fostered and assisted to stay competitive — even if this means automation and decreased job opportunities."

"Once we earn that money, there will be sufficient to spend again to assist in generating job opportunities in a secondary phase of development. Indeed advancements in science and technology were major contributors to raise our standard of living to unprecedented heights."

Within the South African context, industries are highly competitive in a small market area. Advantageous technology and skilled manpower are guarded to the point of total secrecy. Can the CSIR work closely with industry under these conditions, Dr Garbers was asked. He replied that he is fully convinced that it can. Any development work carried out by the CSIR on behalf of a client or in collaboration with him, is highly confidential. But as many industries have found out, an idea can be protected for just so long and then it is either copied with improvements or a new idea supercedes it.

"But this is a world wide problem," he said. "The only way to handle it is to build up a situation of mutual trust between a specific institution and specific industry. We have had occasions where there has been much resistance from industry towards some research work we have initiated which was applicable to a particular area.

"But once one has elaborated the general principles, they become generally adopted within the industry."

In the final analysis one might summarise Dr Garbers' view that there is obviously a dividing line between an organisation like the CSIR and industry, but with mutual trust the overlap areas that affect innovation and transfer of technology can be carefully monitored to mutual advantage and protection where necessary.

In more ways than one, under the leadership of devoted scientists like Dr Garbers and his many colleagues in the multiplicity of disciplines at the various institutes, the CSIR means business. It means research backup; it means financial support; it means help with developing ideas at all levels.

Typically, as Dr Garbers emphasised, "If an area is identified where more research work could alleviate a problem or find a solution for a specific problem, CSIR will make a bursary available to the industry so that a person can be appointed to the staff of that industry. It is prepared to carry the salary of that person for up to three years and assist with a steering committee of experts drawn from its own resources or universities.

"If an industry has an idea it wishes to develop, the CSIR can assist through the SA Inventions Development Corporation."

For Dr Garbers and his scientific and engineering team, service to industry is their major raison d'etre.

CSO: 3400/679

CSIR BODY SPARKS ETHYLENE COST ROW

Johannesburg SUNDAY TIMES in English 20 Jan 85 p 4

[Article by Alex Hogg]

[Text]

A STORM has burst over a hard-hitting report on the chemical industry by the Statebacked Group for Techno-economic Studies.

The report, in the GTES Newsletter, says that ethylene, the major primary input in the production of plastic, should be imported.

Koos Hough, head of the chemicals division at the Council for Scientific and Industrial Reasearch divison, says average South African ethylene prices were twice as high as the international price in 1982 and 1983.

Saudi plant

A Saudi Arabian plant comes on stream this year, and he believes world prices could fall by another 40%—making the SA product even less competitive.

Mr Hough says that because of the large price disadvantage SA producers of plastics and plastic products will never be able to establish a foothold in export markets. SA produces about 390 000 tons of ethylene annually, most of it from Sasol's Secunda plant. The product is a major contributor to Sasol's profits.

Mr Hough says: "We should steer clear of products that cannot hold their own in free international 'competition. Any industry that cannot contribute to economic growth must be reappraised.

Less chance

"If ethylene producers cannot be profitable at international prices, secondary and tertiary producers who are compelled to use the local product have even less chance of being profitable.
"It is difficult to see how

SA can tolerate this situation when it is viewed against the country's declining economic strength — the long-term future of this sub-sector must consequently be seen to be in jeopardy.

jeopardy.
"A continuation of the present policy will result in a

survival strategy and finally to a subsistence level of production."

His findings are significant because ethylene is a major primary product in the production of plastic. Industry experts say ethylene can constitute up to 80% of the end product price.

Chemical industry chiefs, however, dismiss Mr Hough's arguments.

AECI executive director Don Grant says: "My impression is that he hasn't done his homework. There are some glaring errors, particularly the comparison between SA and international prices. It is way out of date because of the rand's depreciation.

Impossible

"Companies like AECI are not forced to buy in SA. There is no duty on imported ethylene. The nature of the product makes it too expensive to import."

import."
The other large user of Sasol's ethylene, Sentrachem,

has a similar view. Managing director Dave Marlow: "All studies indicate that importing of ethylene is impossible, even if we were able to buy from the Saudis.

"Transporting ethylene is not like moving a solid product. It is best to buy the ethylene over the fence."

Validity

But one ethylene producer sees some validity in Mr Hough's argument. He prefers to remain anonymous "because Sasol is a valued and only supplier".

An executive of a chemicals group says there is room to re-examine the price which SA firms have to pay for ethelyne — "Mr Hough puts forward a good argument why this is necessary."

CSO: 3400/679

ECONOMIC RECOVERY SEEN WITHIN REACH

Johannesburg SUNDAY EXPRESS in English 27 Jan 85 p 8

[Article by Brian Kantor]

[Text]

EFORE Thursday South African petrol, measured in United States dollars, was among the very cheapest in the world. The prices of other goods and services in South Africa, including the services of labour, are still very cheap when expressed in dollars.

However, as with petrol, their prices will rise to approach their value in the world markets, of which South Africa is very much an integral part.

Salaries and wages in South Africa will also come to rise faster in line with

also come to rise faster, in line with higher prices generally. They will rise with the recovery of the economy and in perhaps two or three years time travel-ling abroad may again appear a reason-able alternative to a holiday in Cape Town.

Town.

The price of petrol has caught up in one fell swoop with the terrible decline that has occurred in the international purchasing power of our currency.

Until all domestic prices, including wages and salaries, have risen in response to the fall in the value of the rand, exporters, including farmers, mines and firms with the potential to compete with imports, will be handsome winners in the economic game. The losers are those firms largely dependent on imports. firms largely dependent on imports

Among the losers now are also those firms, especially in the furniture and motor sectors, who have been severely affected by the reduction in domestic

spending, especially on durables.

This reduction in spending followed the hike in interest rates and especially the restriction on hire purchase and finance imposed last August.

hese measures were intended to reduce spending and improve the balance of payments, which they have succeeded in doing. They were also intended to help the rand and reduce inflationary pressures which they have failed to do.

The rand has continued to weaken and, more important for most of the period, has been expected to weaken. These very negative sentiments about the rand have continued to maintain the upward pressure on interest rates, which has been so damaging to all borrowers.

There are few businesses or assets in South Africa that have been capable of earning in excess of the 25% and more it costs to borrow capital. But rescue for the business sector is on the way in the form of more demand from abroad, from import substitutes and domestic consumers.

To give an example, a typical small car costs between \$7 000 and \$8 000 in the United States. That is about R17 500 which will buy much more than a small

The increase in the price of petrol was not inevitable. It could have been kept down by subsidising the petrol consumer at the expense of the taxpayer. In fact, the consumer was being subsidised before the increase.

Whatever was being paid in taxes for petrol and fuel was given back — and more — in the form of subsidies, including profits on the sale of oil from the strategic oil reserve.

Since March, 1983 the effective taxes on petrol were being whittled away until recently when petrol became an expenditure rather than an income item in the

government accounts.

government accounts.

It makes no economic sense to artificially cheapen and therefore encourage consumption through subsidising petrol or anything else. By the same token, it makes little sense to artificially tax consumption of petrol at higher rates than other goods, but if petrol is not taxed and government expenditure is not reduced equivalently, other goods and services, including personal income, would have to be taxed more heavily. be taxed more heavily.

It does make sense to associate expenditure on road-building with the rise of petrol, which is being done to the extent

of 5c/litre. The increase in the petrol price should be understood as mainly a fiscal measure.

The domestic consumer is now paying for the cost of importing oil or paying the equivalent to Sasol. The consumer is also paying almost as much in taxes — about 19c/litre in one way or another, as was paid before March, 1983.

The increase in the petrol price represents the kind of action and fiscal responsibility that makes governments very unpopular but because it is unpopular it usually impresses financial markets and

t is presumed that governments who are willing to tax will not resort to printing money to finance their expenditure. Therefore, inflation can be expected to be low and currencies become more valu-

The South African government has effectively reimposed a very high rate of tax on petrol with significant effects on the total budget outlook. But as yet it has not been seen to have won any greater respect from the foreign exchange and capital markets.

Winning respect and confidence in the ability of the rand to appreciate is essential for our economic wellbeing. If the rand does no more than hold its current very low value, interest rates will come down in line with interest rates abroad and the export-led recovery will be accompanied by a recovery, again from low levels, of domestic demand.

his recovery need not be artificially delayed and can take place as soon as the rand is expected to stabilise. And when the rand stabilises, inflation will rise sharply for a year but then will come down significantly and approximate in-flation in the currencies against which the rand holds its own.

It will take further continuous declines in the foreign exchange value of the rand to keep prices rising at the rates they will rise over the next 12 months, which I assume to be about 18% within 8 months.

The further decline in the value of the rand must and can be avoided and can occur with a recovery in the economy. The rand fell not only because the dollar strengthened and the price of gold fell.

It depreciated because of a profound lack of confidence in South African economic management. It appeared to the dealers in foreign exchange that South Africa was permanently heading for much higher rates of inflation.

My view is that the rand has been heavily oversold, that while the government spends too much, it is able to finance its expenditure by raising taxes.

Other governments, which spend relatively more and borrow relatively more, succeed in controlling money supply a whole lot better than we have.

They do so by setting targets for money supply and by preventing demands for bank credit, leading to increases in de-mands from their central banks, which in turn leads to faster money supply growth. It is this lesson that South Africa has failed to learn.

Moreover, when money supply is expected to be under control, interest rates are much lower because inflation is expected to be much lower. The problem with money supply control in South Africa has been technical rather than political.

Direct control could have relieved the pressure on the rand, but unless the fundamentals are right and expected to be right, controls inevitably fail.

Moreover, controls need controllers who have interests of their own, which are not necessarily consistent with the interests of society at large. Controls not only encourage corruption, but poor economic decisions.

It is not so much inflation but the panoply of direct controls and accompanying corrupt bureaucratic maze that distinguishes, if that is the word, the banana republics.

Commitment by the authorities to money supply targets plus commitment to long-run plans for government expenditure and borrowing requirements is fundamental for the rand's recovery, lower interest rates and less inflation, once prices have moved to what would then be high levels, but from which further price increases would be much smaller.

The authorities by their deeds and by demonstrating their understanding of the issues, and being sensitive to the concerns of all those involved in the economy, can make such commitments credible and transform the outlook for the economy.

Miracles are certainly not necessary nor are further sacrifices by South Afri-can consumers called for Moderately good management would be sufficient, but belief that merely moderately good policies will be applied is essential.

CSO: 3400/680

CHILE SEEN AS EXPORT MARKET

Johannesburg ENGINEERING WEEK in English 31 Jan 85 pp 2, 4

[Text]

Despite Chile's admitted economic and political problems, there is the exciting prospect of that country becoming South Africa's major export market in Latin America in 1985, according to John Bell, MD of export specialist Breyer Development Services.

Writing exclusively for Engineering Week from Santiago, Bell notes: "Instead of being limited to a few predictable commodities, our exports to Chile consist of more than 150 different items, by far the largest percentage of which comprises SA-engineered products.

"The major oportumities lie in the fields of mining, and the railway, fishing and industrial sectors."

Major development plans have been announced by Codelco, the world's largest copper producer; by ENAMI, a group of smaller mines; by Soquimich, the world's largest nitrate producer; and by certain privately owned mines.

The value of these projects is in the region of R5 000-million at today's exchange rate.

The State railway, Fer-

rocarriles de Estado, has also announced a special plan for investment in railway installations and equipment which holds good opportunities for South African suppliers.

The fishing industry, in which South African investment is already substantial, is doing well, and continuing expenditure in this sector is expected.

Perhaps of widest interest, Bell says, is the opportunity to supplement the production of Chilean industry.

The general rate of import duty does not discriminate against importers of finished products, and Chilean manufacturers are becoming increasing aware of the opportunity to increase their turnover by importing products they cannot produce themselves for reasons of cost or sophistication.

"Chilean local manufacture is limited in scope, but where it does exist, users prefer to buy locally. It, therefore, makes good sense for a local supplier to co-operate with a South African counterpart and offer a wider, more sophisticated product range."

• Kohler, South Africa's

second largest packaging group, has won a R2-million contract for corrugated cartons to be used in the export of Chilean apples.

The weak rand coupled with superior quality of paper and box design are said to be the factors which influenced the Chilean farming co-operatives to award the 2 000 t order to Kohler.

In all, more than 1,5-million cartons will be shipped in the initial order.

Photo caption:

Chile has proved to be a lucrative market for Lennings Manganese, a foundry located in isithebe, KwaZulu.

An approved supplier to numerous OEMs who supply crushers and allied equipment to the mining and construction industries, Lennings has seen exports rise 163% in value during the past two financial years. They now account for 60% of total sales value.

The company's major exports markets are the USA, Canada, the Far East, Europe, the UK and Chile.

Lennings specialises in the manufacture of cone crusher bowl liners and manties, mill liners, screens, rolls shells and gyratory crusher conclaves.

CSO: 3400/680

ROLE OF PFP MAY BE CURBED

Johannesburg RAND DAILY MAIL in English 6 Feb 85 p 4

/Article by Chris Freimond/

 $\overline{/\mathrm{Text}/}$ Cape Town--The new Constitution could severely hamper efforts by the Progressive Federal Party to monitor discriminatory aspects of Government policy.

The serious drawback emerged this week when it became clear that PFP spokesmen would no longer be able to question Cabinet Ministers in Parliament on issues now regarded as the "own" affairs of coloureds and Indians.

In particular, the restrictions will apply to questions on education, one of the most controversial national issues.

The PFP's spokesman on national education, Mr Horace van Rensburg, said yesterday that he was no longer permitted to ask questions, for example, on per capita expenditure for black, white coloured and Indian scholars. He could only ask for figures regarding blacks and whites.

It was also not clear if he would be able to refer to problems in coloured and Indian education when national education matters were debated in the House of Assembly, he said.

"It will be like putting on blinkers and looking at an issue without the advantage of being able to see the whole spectrum of problems facing the country," Mr Van Rensburg said.

Mr Van Rensburg said it was important to obtain comparative figures on a wide range of issues to assess what progress, if any, the Government was making.

"This new system could severely handicap our ability to continue our fight against discrimination."

The groups in the three separate Houses would be forced to concentrate exclusively on their own problems. They might lose sight of other important issues and become selfish and self-centred, he said.

Questions in Parliament were one of the most valuable tools of a democracy.

Other areas likely to be affected by the restriction include housing, social welfare and health.

CSO: 3400/608

CP CHALLENGE TO GOVERNMENT ON MORALS ACT BREAKERS

Johannesburg RAND DAILY MAIL in English 8 Feb 85 p 4

 $\overline{\text{Article by Chris Freimond}}$

 $\sqrt{\text{Text}/}$ Cape Town--In what could be one of the most serious setbacks so far to Nationalist reform plans, coloured MPs were bitterly disappointed yesterday by the Government's apparent unwillingness to scrap laws prohibiting inter-racial marriage and sex.

And in a new twist to the controversy, the Conservative Party yesterday challenged the Government to say if it would prosecute certain people whose names it had supplied to the Police and to the Minister of Justice for allegedly having sex across the colour line.

Many coloured MPs were understood to be disillusioned yesterday after the Minister of Home Affairs, Mr F.W. de Klerk, told them in a debate in the House of Representatives on Wednesday that another parliamentary committee would be appointed to consider new aspects of scrapping the Mixed Marriages Act and Section 16 of the Immorality Act.

It had been generally expected that the two Acts would be the first apartheid measures to be scrapped by the new Parliament.

The move was considered essential, not only to prove the Government's good intent regarding reform, but also to give some credibility to the participation in Parliament of coloured and Indian MPs.

The implications of Mr De Klerk's speech and the appointment of another committee indicated that it was unlikely that they would be repealed this session.

Labour Party sources said yesterday that there was a strong feeling among many MPs that the Government was letting them down and deliberately delaying the repeal of the laws to placate Rightwing whites.

Coloured MPs were unanimous in their total rejection of the measures and demanded that they be repealed immediately.

It was pointed out to Mr De Klerk that an all-white committee of the previous Parliament considered the repeal of the two measures for 14 months, and that the overwhelming volume of evidence to the committee supported their repeal.

Coloured MPs yesterday demanded to know why it was necessary to appoint yet another committee when it was clear that most South Africans wanted the laws scrapped.

In the House of Assembly yesterday, the leader of the Progressive Federal Party, Dr Frederik van Zyl Slabbert, also questioned the need for another parliamentary committee to consider the laws.

In a related development, the CP MP for Brakpan, Mr Frank le Roux, tabled questions in the House of Assembly yesterday asking two Cabinet Ministers if action would be taken against people who allegedly broke Section 16 of the Immorality Act.

In separate questions to the Minister of Law and Order, Mr Louis le Grange and the Minister of Justice, Mr Kobie Coetsee, Mr Le Roux has asked what action, if any, will be taken against certain people whose names have been given to the Police.

The controversy has highlighted the Government's dilemma in moving away from discriminatory laws.

cso: 3400/608

JOB-CREATION EFFORT IN PORT ELIZABETH REPORTED

Port Elizabeth EVENING POST in English 6 Feb 85 p 1

[Article by Louis Beckerling]

[Text] Seven companies are considering a combined investment of R20,2 million in new industries in Port Elizabeth.

If the companies decide to go ahead with their plans, this will create 528 new jobs in the city.

And further potentially good news is that an investigation into compensating industry for the high cost of railing raw materials from the Reef to decentralised areas has been completed. The Midland Chamber of Industries believes this may result in lower costs of shipping steel from the Reef to Port Elizabeth.

Clarity on the proposed investments in Port Elizabeth came in an interview today with Mr Duggie de Beer, chairman of the Decentralisation Board.

Mr De Beer, in the city to address a meeting of the Midland Chamber of Industries, said the Decentralisation Board had approved applications for industrial incentives from seven companies proposing new investments in Port Elizabeth since the introduction of an improved incentive package for the area in November this year.

The figure contrasts markedly with a claim in Parliament on January 30 by Dr Dawie de Villiers, Minister of Trade and Industries, that 17 new applications involving investments of \$34 million had been approved for the city.

At the time the Mayor of Port Elizabeth, Mr Ivan Krige, expressed scepticism over the Minister's claims.

In an interview with Mr De Beer, it emerged that 10 of the companies mentioned by Dr De Villiers were already established in the city, and had merely applied for the new incentives announced in November to be extended to their existing operations. The combined investment by these Port Elizabeth companies was R14,8 million, said Mr De Beer, and they provided employment for a total of 966 workers.

Significantly, said Mr De Beer, the seven companies were not associated with the motor industry, and would thus broaden the industrial base of the city.

Mr Brian Matthew, executive director of the Midland Chamber of Industries, today welcomed confirmation that new investments were planned in Port Elizabeth.

"We also believe that since the Government has addressed the high cost of railing products out of the area—by doubling the transport rebate from 20% to 40%—it would be logical to apply the same solutions to the high costs borne by the motor industry of shipping steel into Port Elizabeth," Mr Matthew said.

The Government study on this issue, said Mr Matthew, followed representations made by the MCI in April, 1983.

Mr De Beer said the results of the study had been submitted to the Decentral-isation Board, which would now forward recommendations to the Cabinet.

WHITES WANT TO GOVERN OWN LAND

Johannesburg THE CITIZEN in English 22 Feb 85 p 4

[Text]

HOUSE OF AS-SEMBLY. — There was land in South Africa which belonged to the Whites and the Whites wanted to rule over it, the leader of the Conservative Party, Dr Andries Treurnicht, said.

He was moving a private members' motion that the House reject the Government's intention to extend the existing political integration and powersharing to include Blacks, and reaffirm that partition was the only meaningful solution for South Africa.

Dr Treurnicht said it had always been the fundamental principle underlying National Party policy that Whites wanted to govern over their own land.

Clear

It was however clear

from the speech of the State President, Mr P W Botha, when he opened Parliament, that:

 Millions of Blacks would now obtain recognised permanence in nonhomeland White South Africa:

● That they could then no longer find their political expression via homeland governments, and

● Participation in decision-making at the highest level could only mean that these Blacks would have to acquire their own representative body and Cabinet within South Africa, or, share the present Parliament and Cabinet with Whites, Coloureds and Indians.

"The National Party has set the concept of a single government for the country as an absolute imperative," Dr Treurnicht said

"The only government is the multiracial coalition

government we have presently and it is obvious that Blacks will then sit in the same government."

The Minister of Constitutional Development, Mr Chris Heunis, should answer and tell the House whether the Whites who governed at that point would continue to goern.

Dr Treurnicht quoted former Prime Minister, Mr Hand Strydom, from a 1954 speech, former Minister M C Botha and Mr John Vorster to show that there was a golden thread running through National party policy that insisted on Blacks governing themselves in separate homelands and the Whites in their own.

"Make your own speech," one member interjected.

Domination

The State President, he said, had, in raising the

matter of the constitutional accommodation of Blacks, said that there should be no domination of one group over another.

"The Progs also say that," he commented. "The President said there must be joint responsibilities over matters of common interest but that is White, Coloured and Asian. The concept of a unitary state is openly accepted and the Blacks get the best of two worlds—an own national state and the Republic of South Africa thrown in to the bargain."

This would happen at be spent in order to obtain land on which to settle Coloured communi-

"The National Party started with a policy of geographic separation of people, we say you must carry on," Dr Treurnicht said.

cso: 3400/660

AFRICAN SELF-HELP EDUCATION SCHEME OUTLINED

Johannesburg THE CITIZEN in English 22 Feb 85 p 8

[Text]

Unemployment among Blacks increases the danger of revolution, according to the Executive Director of the African Enterprise Institute, Mr Meshack Mabogoane.

Mr Mabogoane gave this view at a Press conference at the Funda Centre in Soweto-yesterday, when he spelt out details of the African self-help educational programmes of the Society of Young Africa (SOYA) movement, which begin next month.

"The more people that are unemployed, the greater the chance of revolution, as they think only of their stomachs," he said. "We want to get to the roots of the problems that face the African today — which is that the unemployed are generally unskilled or with marginal skills."

The self-help pro grammes are under three operational divisions of SOYA—the African Enterprise Institute, African Youth Service, and Industrial Development Workshop's Project.

The programmes take two forms, consisting of training and the teaching of the basic skills, and the creation of jobs, with placement in the community and in a public work project.

"Unemployment is not just being without a job—it leads to a corrosion of the individual mind and soul, and a decay in the community, and thus of the nation," added Mr Mabogoane.

He continued, "We aim to develop and generate industrial entrepreneurs. We aim to establish a linkage system between the First World of high finance—the White economy— and the underdeveloped labour-intensive economy of the Third World."

The workshops consist of "a comprehensive and

planned approach to tackle socio-economic conditions and challenges which face Blacks in particular, and the country in general."

A social enterprise project will include undertakings such as community care centres, housing schemes and youth residence and development centres.

The first Industrial Development Workshop will include training in printing, woodwork and welding, and financial assistance has been provided by the Chairman's Fund of Anglo American Corporation/De Beers.

RAMPAGING PUPILS CLASH WITH POLICE

Johannesburg THE CITIZEN in English 16 Feb 85 p 2

[Article by Rika van Graan]

[Text]

HUNDREDS of scholars demanding the release of their colleagues from police custody went on the rampage in the Orange Free State yesterday.

The stone-throwing mob clashes in Bothaville with other pupils from the Mophati High School

who did not want to take part in the violence.

The mob of about 100 youths marched on the Molefi butchery and stoned it.

Sporadic incidents of violence and riots also erupted in several townships in the Eastern Cape after a violent night in the Fort Beaufort where one resident was hacked to

death and another seriously injured by Black youths who set fire to two private residences.

A spokesman for the Police Directorate in Pretoria, Lieutenant Derrick van der Walt, said yesterday that about 22 Black youths set fire to a private residence in Tinus, the township outside Fort Beaufort. They stoned and assaulted the owner of the house. A 34-year-old man living in the backyard tried to escape,

but he was pursued and hacked to death.

In Thabong township, outside Springs, a Black man was arrested on a charge of public violence during an incident when a crowd of about 200 Blacks stoned police vehicles.

In KwaNabugle, near Uitenhage, in the Eastern Cape, a group of about 200 youths set fire to a private residence after evicting the occupants.

cso: 3400/660

WHITE AID IN BLACK EDUCATION URGED

Johannesburg THE CITIZEN in English 15 Feb 85 p 8

[Article by Keith Abendroth]

[Text]

AN impassioned plea to Whites to back—and help pay for—better education for Blacks was made in the Transvaal Provincial Council yesterday by a Nationalist backbencher, Mrs M P Warffemius.

Mrs Warffemius said that if this meant that Whites had to pay more for the education of their own children, it was "well and good."

She launched a scathing attack on the Progressive Federal Party opposition leader in the House, Mr Douglas Gibson, for his "cynical" and "distrusting" criticisms of plans for enforced payment for White schooling.

Mrs Warffemius said that former US President Richard Nixon was a good example of the old definition of a "cynic"— "a man who always fails to see good qualities in anybody, but never fails to see a bad quality."

She said South Africans must face the fact that nearly 80 percent of the population by the year 2020 would be Black, and Whites would total just under 12 percent.

"How on earth can our country support these

people unless they are trained to help carry the burden," she said.

Money spent on Black education was not wasted — it was in fact the biggest investment Whites could make towards the future of the country.

"If the Blacks do not work and are not qualified to work, (in order) to share the work load, who will buy them food?" she asked.

The unequal expenditure at present was well illustrated by the R813-million being spent this year on the education of White children in the province, compared with the R700-m budget of the Department of Education and Training.

Black parents were accustomed to helping pay for the education of their children. It was only right that Whites do the same. South Africans must face reality, she said.

TRIAL OF ARCHBISHOP HURLEY DRAWING FOREIGN CLERGYMEN

Johannesburg THE CITIZEN in English 16 Feb 85 p 2

[Text]

THE trial of a South African archbishop who accused the country's police of atrocities is drawing senior foreign clergymen—including two archbishops—to the country, the Southern African Catholic Bishops' Conference said yesterday.

Archbishop Denis Hurley, president of the SACBC, is accused of defaming the police by alleging that a special counter-insurgency unit committed atrocities against Black civilians in South West Africa.

Clergymen from Britain and Finland will be present at a Pretoria court on Monday when Archbishop Hurley will be charged with contravening the Police Act. The law bans publication of allegations against the police, which the force denies.

Archbishop Hurley, the most senior clergyman in the hierarchy of the Roman Catholic Church in South Africa, cited two cases of alleged atrocities in South West Africa.

The allegations conzerned Koevoet, a special unit fighting Swapo guerrillas.

Archbishop Hurley is the most senior church leader to stand trial in South Africa.

Among clergymen coming to South Africa in sympathy with Archbishop Hurley, the SACBC said, are Glasgow's Archbishop Thomas Winning, Archbishop Mikko Juva of Finland, Bishop Donal Lamont from Britain and Bishop David Konstant, who is representing Basil Cardinal Hume Westminster.

The Swiss Bishops' Conference has sent a message to the State President, Mr P W Botha, protesting against the trial, it added.

The trial is expected to last about four weeks.

Representatives of major foreign embassies will attend the trial, the SACBC added.

The SACBC said it had called on all Catholics to show solidarity with Archbishop Hurley by staging prayer vigils and observinv a day of fast. The Archbishop will attend a special church meeting on Sunday in Durban. — Sapa-Reuter.

cso: 3400/660

SWEDEN CLAMPS DOWN ON CAPITAL INVESTMENT

Johannesburg THE CITIZEN in English 15 Feb 85 p 11

[Text]

STOCKHOLM. — Sweden's Social Democratic Government plans to tighten already stringent laws limiting investments by Swedish companies in South Africa to express "Sweden's abhorrence of the apartheid regime", according to the Foreign Trade Minister Mats Hellstroem.

A Bill to be debated by Parliament next Wednesday will make it illegal to sell vehicles and electronics to the South African police and military forces.

The Bill will also forbid granting loans to the State. Sweden already bans arms sales to South Africa.

The Swedish Government hopes the Bill, which is assured an easy passage, will soon become law, putting Sweden once again in the vanguard of international moves to isolate South

Africa by encouraging disinvestment.

A 1979 law banning any new direct Swedish investment in South Africa and SWA will be toughened to forbid companies from leasing plant, equipment and vehicles.

Spokesmen for some of the 11 companies involved say the new restrictions will be a further impediment to their activities in South Africa but will not force them out of business there.

However,, the Government wants to set an example to other nations. "This legislation is an expression of Sweden's abhorrence of the apartheid regime," Mr Hellstroem said.

Some businessmen say existing regulations have succeeded only in damaging Swedish companies.

"The aim of the 1979 law was to change apartheid and to get other countries to follow suit," said Mr Thomas Hagdal of the Federation of Swedish Industries. "None of that happened so the law has only been detrimental to Swedish business."

Pressure appears to be mounting in other countries to try to force the South African Government to change the apartheid policy.

Norwegian Commerce and Shipping Minister Asbjoern Haugstvedt has said that Norway would cut South African imports in half in 1985.

US Senator Edward Kennedy, who completed a South African tour last month, pledged to promote anti-apartheid legislation in the US Senate, where he is confident of winning bipartisan support.

While some 350 US companies operate in South Africa, Sweden has only 11 companies operating there with total assets of R164-million in

1983, according to Government figures.

The 1979 law allowed companies to seek dispensations for investments aimed at preserving their existing production capacity in the Republic. Twelve dispensations have been granted, for investments totalling R5-million.

A Swedish Governmental advisory body proposed last year removing the possibility of dispensation by 1990 but the proposal was not implemented. Instead, companies will be allowed to apply for exemptions from the ban on new investment or leasing only once a year.

Mr Hellstroem has said Swedish companies in South Africa should do everything possible to improve the working and living conditions of their staff, particularly the Blacks. — Sapa-Reuter.

DU PLESSIS DEFENDS GOVERNMENT'S IDEOLOGICAL EXPENDITURE

Johannesburg THE CITIZEN in English 15 Feb 85 p 4

[Text]

HOUSE OF REP-RESENTATIVES. — There was no denying the implementation of the Government's ideological policies was costing money and that, on paper, a oneman one-vote system was the cheapest, the Minister of Finance, Mr Barend du Plessis, said.

The point was that such a system would lead to chaos and his Government had no intention of making the same mistakes the rest of Africa had, he said in his reply to debate in the House of Representatives on the second reading of the Part Appropriation Bill.

The Minister was responding to criticism earlier from members that the poor state of the economy was partly due to ideological expenditure by the Government.

"There is not one political party in South Africa whose policies will not cost money and on paper, one-man one-vote is surely the cheapest, but members themselves have ar-

gued here today that this is not the way."

This was why looking at the cost of a system without considering whether it would solve the problems would have to be guarded against.

Believe

"The system we are embarking on now will cost money, but we firmly believe that it is well worth it," Mr Du Plessis said.

"The other way (one man one vote) would lead to chaos."

The Government had made many faults, political and others, in the past and it was certain there would be more in the future, but it was determined, to the best of its ability, not to make the same mistakes again.

Ideological expenditure was always the easiest to attack when the argument of cutting costs came up. But it was historic that a platform had been cre-

ated whereby, for the first time in the history of South Africa, a Minister of Finance could sit and hear directly what the requirements of the Coloured people were.

"I would not want this ball game to be kicked off on a note of animosity," Mr Du Plessis said.

He gave the assurance the Government would do everything it could to run the country's economy so as to meet the needs of all the people, but warned that "things cannot just happen overnight".

Referring to a speech by Mr Charles Redcliffe (LP, Schauderville), Mr Du Plessis said his point that the country's economy "must come right to support reform" was vitally important.

"In times of economic stress people start doubting their own future and become hesitant to support reform.

"Reform is a very risky business because the process of necessity includes a degree of instability among the community, and the Government has to rely heavily on the trust of voters to achieve its ends without disrupting the order of society."

Mr Du Plessis said no deadline or time-scale could be put to the process of reform, because this would be a "grave insult" to those being negotiated and consulted with, as it implied it was already decided what the end result would be.

cso: 3400/660

DU PLESSIS ASKS FOR R1,43-BILLION MORE

Johannesburg THE CITIZEN in English 23 Feb 85 p 4

[Text]

CAPE TOWN. — Parliament is to be asked to approve additional expendifure or R1 436 231 000 the 1984/85 financial year, according to estimates tabled by the Minister of Finance, Mr Barend du Plessis.

This brings the total revised budget for the financial year ending March 31, 1985 to R22 942 379 000.

Mr Du Plessis will deliver his Second Reading speech for the Additional Appropriation Bill to a joint sitting of Parlia ment on Monday.

Additional amounts to be voted in terms of the estimates include R295 934 000 for agriculture, R197 506 000 for defence, R150 864 000 for transport, R156 410 000 for community development, R142 486 000 for industries and commerce, R87 202 000 for constitutional development and planning and R80 692 000 for foreign affairs.

The additional estimates also include amounts of R79 544 000 for the administration of the house of Assembly, R12 774 000 for the House of Representatives and R13 000 000 for the House of Delegates.

According to the estimates, the bulk of the additional expenditure on the agriculture vote — R249 294 000 — is in respect of industry assistance and subsidies on maize and wheat products.

Tabled

An explanatory memorandum on the Defence Vote, tabled by the Minister, General Magnus Malan, attributes the increases in the department's spending to inflation' exchange rate losses; higher pay for permanent force members and cons6760001cripts, an increased National Service intake in January 1985 and a greater number of

voluntary National Servicemen because of the economic situation.

The increased expenditure by the Department of Community Development includes R86 000 000 for housing aid to officials, according to an explanatory memorandum tabled by the Minister of Communications and Public Works, Dr Lapa Munnik.

Higher interest rates, an increase in the number of officials who bought homes and voluntary increases in instalments to discharge bonds sooner contributed to the increase, the memorandum says.

The, bulk of the increased Transport Budget is in respect of operating losses in rail passenger services (an increase of R90 000 000) and R39 200 000 more in contributions to transport services for Blacks, Coloureds and Indians.

Higher estimates for

the Department of Industries and Commerce include R128 043 000 for decentralisation of industries, while R84 415 000 of the additional R87 202 000 to be voted for the Department of Constitutional Development and Planning is in respect of higher provincial subsidies.

Foreign Aid

Of the extra R80 692 000 needed for the Foreign Affairs Vote, R76 203 000 is in respect of foreign aid and development co-operation, according to an explanatory memorandum.

This includes an "unavoidable contribution" of R50 375 000 to Transkei, Venda and Ciskei for the implementation of occupational differentiation for their employees, the memorandum says.

Also included in the additional expenditure is R16 689 000 for subsidies to entrepreneurs

ANC MEMBER TELLS COURT ABOUT ORGANIZATION, TRAINING

Johannesburg THE CITIZEN in English 15 Feb 85 p 9

[Article by Tim Clarke]

[Text]

DURBAN. — The African National Congress gave instructions after two cross-border raids by the South African Defence Force into Lesotho and Mozambique that "soft" targets should be attacked in South Africa in reprisal for the raids.

This evidence was given in the College Road Supreme Court, Pietermaritzburg, by Sipho Xulu (25) who was convicted of murder in the court yesterday, together with Clarence Payi (20), by Mr Justice J Kriek and two assessors.

Xulu under crossexamination from Mr Les Roberts, SC, the deputy Attorney-General of Natal who is prosecuting for the State, said after the SADF attacked an ANC base at Matola in Mozambique in which 13 people were killed, and after the Defence Force attacked an ANC base in Maseru, Lesotho, in which 43 people were killed, the ANC ordered that "soft" targets like restaurants where soldiers went should be blown up.

"They said if there were civilians there, it was purely incidental," Xulu said.

Earlier, Xulu admitted killing a Black consciousness leader, Mr Ben Langa, at his home at Georgetown on the night of May 20, last year, because "I hated the man after he had become a sell-out to the ANC cause".

Xulu, a short man, described how he was given instructions by the Commander-in-Chief Intelligence, of the ANC, to "eliminate" Mr Langa in Swaziland shortly before arriving back in South Africa after undergoing training in Angola, East Germany and Swaziland.

Xulu, who comes from Sobantu township, Pietermaritzburg, described how the Chief of Intelligence had told him while travelling in a car to the South African border, that he should "eliminate" Mr Langa.

"I was shattered because it was Ben Langa who recruited me to join the ANC in 1982 when the police were looking for me in Pietermaritzburg.

"I asked the ANC official why Langa was to be eliminated and he replied that Langa had led three potential ANC recruits to their deaths. The ANC officer told me that he was a traitor to the cause

and had to be eliminated."

Xulu, said he had no regrets in killing Mr Langa.

Answering questions from Mr Justice Kriek, he said he was "a soldier" of the ANC and had taken an oath to carry out the instructions of "Umkonto We Sizwe", the armed wing of the ANC.

He said he was an ANC platoon commander in Angola in 1983, with 500 men under his command.

When the South African Defence Force attacked bases in Mozambique and Lesotho, the ANC command said they should "hit back" by attacking "soft" targets in South Africa.

"I was filled with hate for Mr Langa, even though it was he who persuaded me to join the ANC."

Xulu, a matriculant, said he was at school at Mount Frere in the Transkei in 1976 when unrest broke out in Soweto over Afrikaans being made compulsory.

He said the students at the Transkei school decided to convene a meeting following the death of some Soweto students. The school authorities objected and the school was closed. Later he received a letter saying he should not return to the institution.

He completed his education in Pietermaritzburg and then worked for two firms in the Natal capital. During this time the Drakensberg Administration Board (DAB) informed Sobantu residents that there was to be a rent hike of between R3,80 and R3,90 a month.

Residents were very upset because they still had "bucket systems" and all the houses leaked.

He was living with his grandmother at Sobantu. When a series of meetings were held at the community hall protesting against the increases. The police intervened, and fired tear smoke.

Graham Radebe was shot dead during this time and Sobantu residents became very upset. They decided to hold a massive funeral.

The funeral took place late in December 1982. Again the police intervened, fired tear smoke and broke up the procession.

Later that month he received a call from Mr Langa, proceeded to Durban and met Mr Archie Gumede, Mr Zac Yacoob, members of the UDF.

Mr Langa showed him films of the "struggle in South Africa" and said that the ANC were the people who were fighting for the rights of the Blacks.

Later he was given a direct invitation by Mr Langa to join the ANC and go overseas for training. He did not answer immediately but later telephoned Mr Langa at a number in Durban and said he was prepared to join the ANC. At this time the police were calling at his home almost daily and he feared arrest.

The trial is continuing.

REASONS FOR COLLAPSE OF ANC TALKS EXAMINED

Johannesburg THE CITIZEN in English 15 Feb 85 p 8

[Text]

AN Afrikaans journalist who interviewed executive members of the African National Congress said yesterday other anti-apartheid groups had thwarted a meeting of the ANC and National Party members last year.

"The meeting became an open secret, and both sides got scared," Dr Piet Muller, assistant editor of Beeld, told a Press luncheon in Pretoria.

Dr Muller, who wrote two controversial articles on his meeting with the African National Congress in Lusaka last year, said no direct talks had been organised.

"A few backbenchers in the National Party were going to attend an international conference which the ANC would also be attending."

. Dr Muller said that when the possibility of a meeting was publicised, anti-apartheid groups urged the ANC not to take part.

"Organisations such as the UDF (United Democratic Front) and the Anti-Apartheid League are dead-set against any direct discussions with the National Party," Dr Muller said.

"When things quieten down, I think they (the ANC and the NP) might try it again."

Dr Muller said the ANC, like the National Party, "has problems in its constituency."

The older generation on the ANC's executive differed from the younger, more militant members who wanted an escalation in the armed conflict against South Africa.

"But I think the older generation will win in the end," Dr Muller said. "Because if the ANC starts attacking civilian targets, they will have diplomatic difficulties with their host countries (where the ANC has representatives)."

Dr Muller said the ANC executive members had explained they still stood for the 1954 Freedom Charter.

"But they have no preconceived ideas on what the solution for South Africa should be. They say we should find our own solution to our unique problems."

Dr Muller said that although the ANC rejected the homelands, "they are ready to discuss federalism.

"They realise that the homelands are a part of the South African scene and cannot be wished away with political rhetoric."

Dr Muller said there would be a "long courtship" between the Government and the ANC, but both were giving "strong signals" in favour of negotiations.

"They are watching each other," Dr Muller said.
"But at present they are both at the hard-to-get stage."
— Sapa.

PFP SLAMS GOVERNMENT ABOUT HOMELANDS, BLACK CITIZENSHIP

Johannesburg THE STAR in English 1 Feb 85 p 4

/Text/ Parliament--Black homelands citizenship and influx control were key elements of the No-Confidence debate in the House of Assembly.

The State President, Mr P.W. Botha, yesterday attacked "anti-South African propaganda" which referred to black homelands as "rural slums."

Later, the Government was criticised by both the Progressive Federal Party and the Conservative Party for its policy on homelands and black citizenship.

During his speech, Mr Botha quoted from a document attacking homelands in which it was stated that 87 percent of South Africa's land was in white hands.

Mr Botha said the land division was historical and the former British protectorates of Botswana, Lesotho and Swaziland, together with the Transkei, Bophuthatswana, Venda and Ciskei would have constituted 57,7 percent of former British South Africa.

Agricultural potential in the black states was high and they could provide food for 25-million people if land was properly used.

Mr Ray Swart (PFP, Berea) said forced removals and land consolidation had brought not racial peace and harmony, but "increased tension, anger and hostility."

More than half the total black population in South Africa lived in 13 percent of the land area which produced less than four percent of the gross domestic product, Mr Swart said.

Government policy had been to encourage black people to move out of urban areas into homelands.

"The rapid growth of population in homelands has caused a substantial decline in material conditions of life in these areas and has increased pressure for migration to the metropolitan areas."

Abandon

Calling for the Government to abandon influx control, Mr Swart said it had not prevented urbanisation, but only relocated it.

The Conservative Party member for Barberton, Mr Casper Uys, said he had always understood the National Party's homeland policy to be one of giving "every black person citizenship in his own fatherland notwithstanding where he lives."

"Now we find the State President saying that 'clarity must be reached with regards to black citizenship."

WHITES' BIRTH RATE SHOWS NEW DECLINE

Johannesburg THE CITIZEN in English 5 Feb 85 p 9

 $\sqrt{\text{Text/}}$ South Africa's declining White birth rate now means that Whites are outnumbered more than six to one by the other three race groups.

Estimates prepared by the Bureau of Market Research of the University of South Africa, released in Pretoria yesterday, put the country's total population--including the four independent Black states--at 31,3-million.

The White population is growing at only 1,5 percent a year, and of this, nearly half is due to immigration.

The figures underline the concern of the authorities over the country's declining White birth rate.

The figures show that of the total population for the country, 72,8 percent is Black, 15,4 percent is White, 9 percent Coloured and 2,8 percent Asian.

The population of South Africa itself—excluding the Transkei, Ciskei, Bophuthatswana and Venda—is set at 26,2-million, with Blacks making up 67,7 percent, Whites 18,4, Coloureds 10,6 and Asians 3,3 percent.

More than half--53,6 percent--Whites live in the Transvaal. Some 84 percent of all Coloureds live in the Cape, and 52.6 percent of all Blacks in the Republic were living in the four national states.

The total population of all five states rose by 2,5 percent a year between 1980 and 1983. Relocation and boundary changes were mainly responsible for the highest population growth rates, which occurred in Qwa-Qwa, 24,6 percent a year, and KwaNdebele, 12,9 percent a year.

The biggest concentration of Whites are in the Johannesburg-Randburg area. The region has 1,9-million people, 31,3 percent of whom are Whites and 59,2 percent Blacks.

The most populous territory is Kwa Zulu, with a total population of 3,8-million, 90,6 percent of which is Black.
CSO: 3400/605

HEAVY DAMAGE AT CROSSROADS

Johannesburg THE CITIZEN in English 21 Feb 85 pp 1, 2

[Article by Rika van Graan, Bert van Hees, and SAPA]

[Text] The death toll in the riot-torn Crossroads squatter complex near Cape Town remained at 16 late yesterday, but police reported heavy damage to police, Administration Board and private vehicles.

Although the area was "quiet and under control", police were continuing to patrol said police liaison officer, Lieutenant Attie Laubscher.

The riots said to be the worst in almost 10 years, left 230 people, including 26 policemen slightly injured. Two Administration Board vehicles were badly damaged and six privately-owned vehicles gutted and 10 damaged, according to figures released by the police.

Twenty-eight police vehicles were damaged, and a Post Office van burned.

Meanwhile, health authorities have warned of the possible outbreak of disease in the crowded complex if rioting continues to hamper essential services such as the daily collection of latrine buckets.

Dr L Tibbit, Medical Officer of the Health Divisional Council, warned that the situation could generate an outbreak of gastro-enteritis and spread measles.

He has withdrawn his Health Department staff from the area.

Dr Tibbit said there was a danger of gastro-enteritis related illnesses appearing if the pails were not removed soon.

An "unusually high" number of measles cases had been reported to the Nyanga and Crossroads clinics. Last month medical staff treated between 60 and 70 cases.

A huge inoculation campaign--involving 20 000 children--was necessary to combat the diseases, Dr Tibbit said.

"If we don't get in there soon it could become serious," he said. "In November we innoculated 3 000 children, but there is such a tremendous turnover of population that numbers are increasing all the time."

He said that with the help of ancillary health services such as the Department of Health, inoculations could be done in a week.

Meanwhile, at a meeting between the Chief Commissioner in the Department of Co-operation and Development, Mr Timo Bezuidenhoud, and the Crossroads community leader, Mr Samuel Langa, Mr Bezuidenhoud was asked for more time to allow calm to be restored in the camp.

Mr Langa had given an undertaking to talk to the residents at Crossroads during a previous meeting with Mr Bezuidenhoud on Tuesday, and was to have reported back to Mr Bezuidenhoud yesterday.

The PFP's chief spokesman for co-operation and development, Mr Ray Swart, yesterday gave notice that he would call for a snap debate on the Crossroads unrest.

He gave notice that he would move in terms of Standing Order No. 23 that the House adjourn to debate a matter of public importance, the Crossroads situations.

He issued a statement later saying that in the past week the PFP had made several approaches to the Government to express "our mounting concern over the on-going uncertainty about the future of the people of Crossroads."

The Minister of Co-operation and Development and of Education, Dr Gerrit Viljoen, had assured them that he was taking urgent steps to deal with the situation, "but we believe that it is in the public interest, particularly as far as the Western Cape is concerned, that the matter be fully ventilated in Parliament at the earliest available opportunity.

"For that reason, after negotiation with the Speaker, we have called for an urgent debate to discuss the issue," Mr Swart said.

The tragedy of the riots and unrest in Crossroads and elsewhere in the country over the past few months was that it could have been avoided, Mr Pat Rogers, the New Republic Party spokesman on co-operation, development and education said in Cape Town yesterday.

"It is the old story of too little too late--the National Party's knee-jerk reaction to one crisis after another," he said in a Press statement.

MIXED REACTION TO TRANSPORT SERVICES HIKES

Johannesburg THE CITIZEN in English 21 Feb 85 pp 1, 2

[Article by Julia Beffon and SAPA]

[Text] There has been mixed reaction to the South African Transport Services Budget announced by the Minister of Transport, Mr Hendrik Schoeman, from trade and commerce organisations.

Most organisations expressed relief that the tariff increases had been kept overall to a rate below the inflation rate.

However, the Trade Union Council of South Africa (Tusca) said the increase in freight rates for a wide range of food items would push those consumers who were still managing to subsist in the present economic trouble near to, or into, financial disaster.

The president of the Association of Chambers of Commerce (Assocom), Mr Michael Weir said in a Press statement yesterday.

"The Minister is to be commended for presenting a fair budget with average tariff increases announced considerably below the inflation rate--except of course for the previously announced passenger fare increases."

"Asocom would nonetheless have preferred to see a single budget reflecting all the tariff decisions, rather than a series of ad hoc adjustments," he said.

Asocom considered that two areas needed ongoing attention.

These were the losses on passenger services and the need for central revenue to compensate for socio-economic services and the unacceptably high harbour charges, particularly ad valore used for cross-subsidisation purposes.

"South African ports are already among the most expensive in the world," Mr Weir said.

The president of the Afrikaner Handelsinstituut (AHI), Mr Leon Bartel, said the AHI was pleased the increases were not as high as the passenger fare increases because of the "pressure the business sector is already experiencing in its struggle for survival".

In slamming the increases, Tusca said in a Press statement: "For all the unemployed, retrenched and lowly paid workers these increases are yet another body blow aimed at their very survival".

Political Folly

It described the increases announced by the Government as "acts of economic sabotage and political folly of the grossest magnitude".

"Tusca believes the Government must have so completely lost touch with reality that they just do not understand that the people of South Africa just have no more resources to cope with any further increases in the cost of living—at a time when the Government itself is going ahead with reckless spending on grandoise and ideological schemes".

The statement said the Government would reap "a bitter harvest" as a result.

The Chief Executive of the South African Chamber of Industries (FCI), Dr J G van Zyl said, "the generally low average percentage increase announced by the Minister masks some significant heights for specific commodities, passenger transport and road haulage rates".

"These will have an adverse impact on these sectors and the economy as a whole," Dr Van Zyl said.

Both Assocom and the FCI called for a more open transport sector.

The Automobile Association welcomed the fact that petrol was excluded from the increase in railway tariff increases.

The Government has come to recognise "the iniquity of the excessively high charge for the conveyance of petroleum products by pipeline," a spokesman for the AA said yesterday.

The President of the National Maize Producers Organisation (Nampo), Dr Piet Gouws, described the relatively low increases in the maize transportation tariffs as "good news--it could have been much worse".

"At last it seems as if people are starting to listen to us. We cannot carry on like this—the Government-led price increases are killing agriculture," said Dr Gouws.

He said he did not think there would be an increase in the price of maize as a result of the tariff increases.

COURT MOVE TO EVICT MINE STRIKERS

Johannesburg THE CITIZEN in English 21 Feb 85 pp 1, 2

[Article by Stephane Bothma]

[Text] An urgent application asking for an order for the eviction of 273 East Driefontein gold mine workers from a mine hostel after they had lost their jobs for participating in an unlawful strike, was yesterday heard in the Pretoria Supreme Court.

The application was brought by Gold Fields of South Africa (Ltd) and Driefontein Consolidated (Ltd) against the National Union of Mineworkers and 273 workers at the East Driefontein mine in the district of Oberholzer in the Transvaal.

Mr Justice F Kirk-Cohen yesterday granted a rule nisi, giving the workers the opportunity to show cause before February 27 this year as to why they should not be evicted from the hostel and the property of the mine.

In an affidavit by Mr Barend Christiaan Oberholtzer, the manager of the East Driefontein mine, it was yesterday stated that the workers are presently unlawfully residing in one of the hostels.

"This is a very urgent matter as it is essential for the time to replace the workers dismissed in order to restore full production. The accommodation is required immediately to house the new workers," Mr Oberholtzer stated.

He claimed the presence of the strikers was having a disruptive effect on the workforce and could spark off serious unrest, including violence and damage to the property of the mine.

"I know from past experience that such unrest could spread to other mines," Mr Oberholtzer said.

He added that the strike had started on February 14 this year after a dispute revolving around the subject of the presence of shaft stewards to represent members of the mineworkers' union in disciplinary hearings.

"On February 15 the South African Police and mine security were on standby to ensure that the situation was kept under control and it was apparent that there were a number of pickets at entrances of the mine who were intimidating workers to join the strike," Mr Oberholtzer said in his statement.

The mine authorities had warned the union that the strikers would be dismissed. Later the union informed the authorities that the workers disapproved of the existing system whereby an "early return bonus" is paid only on their return from a period at home.

They also called for the dismissal of the chief hostel manager and a senior Black assistant.

MINE SPOKESMAN DENIES FORCE USED ON RIETSPRUIT STRIKERS

Johannesburg THE CITIZEN in English 20 Feb 85 p 5

[Text] Claims by the National Union of Mineworkers (NUM) that more than 50 people had been injured in unrest at the Rietspruit opencast colliery near Witbank were "absolute hogwash", a senior mine spokesman said yesterday.

The spokesman, Mr Allen Cook, deputy head of Rand Mines' coal division, also dismissed NUM claims that Reitspruit mine security personnel were being used to force strikers to return to work.

Rand Mines, joint owners of Reitspruit with the Shell company, on Monday issued an ultimatum to striking Black staff to return to work yesterday or face dismissal.

A NUM statement said yesterday: "The mine has locked the main gates and has turned Rietspruit into a concentration camp and curtailed movement of workers."

Mr Cook described the allegation as "absolutely untrue".

The union also claimed it has received reports that its members were being forced by mine police to return to work. Those who resisted were being paid off.

It added the security personnel were using dogs, rubber bullets, and tearsmoke on "passive miners".

Mr Cook said the last incident of unrest at Reitspruit had been on Sunday evening when rubber bullets, dogs and tearsmoke were used to disperse a crowd of about 150 workers advancing on White married quarters.

Mr Cook strongly disputed NUM's claim that 50 people had been injured. He said there had been eight injuries by Sunday and most of the victims had been beaten by union activists.

He denied people were being forced to return. "You don't get a day's work out of a man who is being forced to work," he said.

The mine's main gates had not been locked although on Sunday there was extra control at the boom following rumours reaching management that outside union activists were being called in to boost the strike.

Mr Cook said the 86 dismissed workers yesterday left the mine "of their own accord".

He was not aware of any court actions to prevent eviction of workers from their houses and said no one was being evicted.

He also said the majority of the 86 dismissed men appeared to be "young Turks" who had realised their cause was lost and had decided to leave.

Mr Cook said the strike had been sparked off when NUM shop stewards refused to co-operate with management in setting a mutually acceptable time for the holding of a memorial service for a Black worker killed in an accident almost two weeks ago.

SOUTH AFRICA ACCEPTS JAPANESE FREEZE ON COAL PRICE

Johannesburg THE STAR in English 25 Feb 85 p 13

[Article by Daryl Gibson]

[Text]

TOKYO - South African coal suppliers have accepted price freezes on coal for shipment to pected to be 240 000 tonnes to Japan, coal sources in Japan said yesterday.

Total Exploration, exporter of Ermelo coal from the Transvaal, agreed with the Electric Power Development Corp (EDPC) to keep 1985 prices at \$33,90 a tonne, the same as last year and matching a freeze on Rietspruit coal.

Ermelo shipments to Japan are expected to be 180 000 tonnes to EDPC, 100 000 tonnes to Chugoku Electric Power, 110 000 tonnes to Hokuriku Electric Power and 300 000 tonnes to Mitsubishi Mining and Cement,

all essentially unchanged from last year.

Rietspruit shipments are ex-EDPC and 100 000 tonnes to Mitsubishi.

The Transvaal Coal Owners' Association, suppliers of Witbank thermal coal to the Japanese, accepted a similar price freeze on their exports, but conditional on volume matching or surpassing the 2,6 million tonnes delivered in fiscal 1984.

Sources said the Witbank deal is for \$41,50 a long ton, and added the two sides initialled a 15-year contract which will replace the current contract set to expire on April 1 1987.

Details of the new contract will be decided prior to the expiration of the old one, the sources said.

The Japanese suggest that the freezes came because of the decline in the rand against the US dollar, which means returns at home will be substantial even though the price remains unchanged.

3400/680 CSO:

COAL PROSPECTING IN NATAL 'CORRIDOR'

Johannesburg THE CITIZEN in English 20 Feb 85 p 4

[Text]

CAPE TOWN. — A lease had been granted to explore for coal on State-owned land earmarked for mining development in the corridor between the Umfolozi and Hluh-luwe game reserves in Natal, the Minister of Mineral and Energy Affairs, Mr Danie Steyn, said yesterday.

Replying to a question by Mr Roger Burrows (PFP, Pinetown) he said the prospecting lease had been granted to Trans Natal Coal Corporation Ltd in terms of the Mining Rights Act.

This was for 1 367 ha—
or about one thirteenth—
of the so-called corridor
area, which constituted
State land.

The rest of the area had been transferred to the Natal Provincial Administration in 1982.

Mr Steyn said objections had been received from the Wildlife Society of Southern Africa and the Administration of Na-

tal, after the lease was granted.

They had apparently been under the impression the whole of the corridor area had been allocated to the Natal Provincial Administration, but the matter had already been explained verbally and was also being done in writing.

Referring to another part of Mr Burrows' question, the Minister said his department had not requested a report on the possible environmental effect mining would have in the area.

This was because the Department of Public Works and Land Affairs, as custodian of State land, had indicated the land concerned had been earmarked for mining development.

Furthermore, his own department was vested with the necessary statutory authority to enforce environment protective measures.

Mr Steyn said the pro-

spector had the right, in terms of the lease, to enter the area with such machinery as might be necessary.

No drilling rig had yet been used by the company in the area and a decision on whether the sinking of any borehole would be justified would only be taken after completion of surface mapping.

OPENCAST OPERATIONS BEAR BRUNT OF FUEL HIKE

Johannesburg MINING WEEK in English 30 Jan 85 p 1

[Article by Tom McCuaig]

[Text]

THE mining industry is going to face a huge bill, estimated to be at least R83 million, as a result of the increase in fuel prices.

The total overall cost to the industry could be much higher when increases in transport costs are evaluated.

The big mining houses are at present anxiously trying to figure out what the final bill will amount to — but it will be some weeks before they can complete detailed assessments.

The hardest hit will be the open-cast operations which are generally fuelintensive, such as Rio Tinto's giant copper producer at Palabora and Iscor's iron ore mine at Sishen.

Palabora, for example uses 40 million to 45 million litres of diesel products annually.

As these have gone up by around 20 cents a litre, the operation will incur an additional R9 million or so a year.

The bill would hit Palabora harder if it were not for the trolley-assist programme — that is, additional electrification — which has already provided a 25 percent saving.

Iscor is also trying to tot up what the increased fuel prices will mean to its huge iron ore mine at Sishen in the Cape and to the comparatively new open-cast coal producer at Ellisras in the northern Transvaal.

Adding to the worries

of these producers is the fact that they are all in fields which have fierce competition on world export markets.

Although copper has rallied of late, this is believed to be due to a large extent to producers depleting stocks.

When copper begins to stockpile again, the export market is to become more difficult.

Coal and iron also have to contend with difficult export markets.

Thus, the producers are concerned with the effect the big increases in fuel prices will have on their export efficiency.

SATS has already announced its intention of applying for higher rates and this also will have a substantial effect on export competitiveness.

"We will just have to absorb most of these increased costs," said an Iscor source. "We will have to look very closely at every aspect in which we can streamline production."

Iscor has already been effecting savings by paring production costs and introducing electrification.

But the mining industry has just been hit by price hikes from Escom — with possibly more to come.

On the domestic scene, higher rail costs will hit the consumer market hard.

Already, railage costs two-and-a-half times the pit price of coal and one estimate is that this will rise to about three times the pit price.

cso: 3400/680

EFFORT TO INCREASE FUEL OUTPUT NOTED

Johannesburg SUNDAY TIMES in English 27 Jan 85 p 1

[Text] In spite of the world oil glut and fears that crude might fall to \$10 a barrel from the current \$29—South Africa is to increase its indigenous fuel production.

Louw Alberts, Director-General of Mineral and Energy Affairs, told Business Times yesterday that SA had a strategic policy to produce "above a certain fraction" of its fuel needs.

Mossel Bay

This, and the fuel stockpile, which was used for the first time last year, would protect SA from embargoes.

Fuel consumption, said Dr Alberts, had risen by 50% since Sasol 2 and 3 were planned. Sasol was now producing less than the required fraction of SA's fuel needs.

This meant that not only the Mossel Bay project but synthetic fuel schemes, including proposals by AECI, Anglovaal and Gencor, would receive serious consideration.

"We are looking at three proposals apart from Mossel Bay and I would be surprised if one or two schemes were not completed in the next decade.

"Even though it has forgone its 3,6c a litre subsidy, Sasol will make wind-fall profits out of the latest fuel price. These will enable it to pay off loans to the Government. The Government can use this money to fund further projects."

Determined

Dr Alberts said a decision on Mossel Bay would be taken in mid-year after the multi-million rand feasibility study was completed.

The decision to step up indigenous fuel production, even though synthetic fuel cost more than imported crude, was purely strategic. Even though only a low rand could make these projects economic, the Government's determination to increase indigenous production did not indicate a lack of confidence in the rand.

SELF-SUFFICIENCY IN OIL SOUGHT

Johannesburg RAND DAILY MAIL in English 25 Jan 85 p 1

[Article by David Furlonger: "SA Could Make All Its Own Oil Within 5 Years"]

[Text]

SOUTH AFRICA could be self-sufficient in liquid fuel within five years.

Analysts believe there are enough stocks of coal and natural gas to more than satisfy the country's fuel needs. But they say it needs decisive Government action to take advantage of them.

This week's sudden rise in petrol and diesel prices is expected to lead to soul-searching in both Government and private sectors on whether there should be further investment in synthetic fuel processes.

Although Sasol supplies an estimated one-third of South Africa's fuel needs with its oil-from-coal process, the latest price increases demonstrate the country's continued vulnerability to external forces such as the oil boycott and the strength of the dollar.

However, say the analysts, such vulnerability is unnecessary. There are enough natural resources both on land and around the coastline to more than satisfy SA's liquid fuel needs.

They estimate that the giant Kudu gas field, off the coast of South West Africa, is rich enough to provide between 40% and 50% of our fuel needs.

One analyst said yesterday: "Kudu could be up and going within three or four years. Then you add another year for the politicians to waste time, and you're still ready in five years."

Such swift development would be dependent on Kudu's gas being piped straight to existing refineries near Cape Town.

The analysts admit, however, that the Government and other potential Kudu investors are worried at the prospect of spending millions of rands on establishing the field, only to see it fall into others' hands when SWA becomes independent.

"You have to accept that SWA will go one day," said an analyst. "On the other hand, whoever becomes the government there will have to deal nicely with Kudu. Natural gas doesn't travel well, so the only real market for the field is South Africa."

The Mossel Bay field, off the Southern Cape coast, is also a potential source. With its resources alongside those of Sasol and Kudu, "we could create between 90% and 100% of our fuel needs in this country from known natural resources. And that is without taking into account the Mozambique gas fields south of Beira, which could be three times as big as those at Mossel Bay".

Bay".
Turning gas to liquid fuel is already a proven process overseas, notably in Australia and New Zealand. The Mobil oil company is also understood to have developed such a process.

Experts point out, however, that any producer of liquid fuel from gas must find a market for chemicals arising from the process.

"Sasol makes fuel but it also markets a lot of chemicals arising from its operation. It would be very difficult to set up a fuel-from-gas operation without also finding a market for the chemicals."

Even so, natural gas as a source of liquid fuel still appears to hold

the edge over oil-from-coal.

Besides Sasol, several other major corporations have explored the possibility of entering the oil-from-coal industry.

Gencor admitted some years ago it was looking into it but added: "This is a long-term project." Anglo American Coal Corporation (Amcoal) has also been involved in research with Shell and AECI.

Anglovaal is still keeping its options open in the US, where a Carolina coalfield is the base for continued research into creating methanol, a liquid fuel base.

Officials of these companies were not available yesterday but sources say they are still some way from a decision.

Any new synthetic fuel plant would cost billions of rands and take three or four years to reach the production stage, and there is no guarantee that the same economic conditions will exist then.

Sasol, too, is holding back from further expansion, despite a R180m streamlining programme that is expected to increase synthetic fuel production by 6% in the next two

With a R1.5bn debt outstanding for the purchase of Sasol Two from the Government, a senior spokes-man stressed yesterday that there were no plans at present to build a fourth Sasol plant.

Sasol, in fact, is one of the few organisations benefiting from the latest round of fuel price increases.

Because its fuel is produced locally, it is unaffected by the rand-

dollar rate so, in theory, has no need to raise its price.

However, under an agreement with fuel importers, it is required to raise its price to the same level as competitors.

BRIEFS

339 DETAINED DURING 1984--Cape Town.--Forty-four people under the age of twenty were detained in terms of security legislation last year, the Minister of Law and Order, Mr Louis le Grange said. In a written reply to a question by Mrs Helen Suzman (PFP, Houghton), he said in 1984 a total of seven Whites, six Coloureds, five Asians and 321 Blacks were detained under security laws. Of these 44 were less than 20. From January 1 to February 5, a total of 47 people had been detained, all of them Blacks. In reply to another question by Mrs Suzman, Mr Le Grange said nine people detained under security laws in 1984 were under 18. Four were being tried but there had been no convictions. Their cases were still pending. [Text] [Johannesburg THE CITIZEN in English 21 Feb 85 p 2]

LABOR DISPUTES--Cape Town.--The SA Police were called to the scene of 39 labour disputes, 31 work stoppages and 259 strikes in 1984, the Minister of Law and Order, Mr Louis le Grange, said, in a written reply to a question by Dr Alex Boraine (PFP, Pinelands). [Text] [Johannesburg THE CITIZEN in English 21 Feb 85 p 2]

DEFICIT OF \$192-MILLION EXPECTED—The SA Transport Services' expected deficit of R192 million for the 1985/86 financial year could be reduced or a "break-even" situation reached if there was an economic upswing, the Minister of Transport, Mr Hendrik Schoeman, said yesterday. He said the Services had managed to break even this year after an expected deficit. "If there is an economic upswing in 1985/86 we might be able to reduce the R192 million deficit budgeted for, or even break even again." After announcing a wide range of new and increased goods services tariffs to provide a goods revenue increase of 7,6 percent, or R227 million, he said in Parliament that Sats did not wish to increase tariffs to such an extent as to make good the R192 million deficit. "We will endeavour to reduce it by greater efficiency, more savings and still higher productivity." It was estimated that revenue derived from all services would amount to \$8 158 million, while expenditure after appropriation of net revenue would total R8 350 million. [Text] [Johannesburg THE CITIZEN in English 21 Feb 85 p 13]

MINERS RE-EMPLOYMENT DENIED--More than 270 mine-workers who were still living in the hostels of the East Driefontein mine near Carletonville after being dismissed last weekend, would not be re-employed, a spokesman for Goldfields said yesterday. An application by the mine for the eviction of the workers

was lodged with the Pretoria Supreme Court on Wednesday. It will be considered next week to give the workers time to prepare their defence. The workers were part of a group of nearly 800 who were dismissed after failing to report for work. [Text] [Johannesburg THE CITIZEN in English 22 Feb 85 p 10]

UK MINERS--Stockholm. --Six hundred British miners, many of them made idle by a long coal strike at home, have been recruited to work in South African mines in the past six months, an official of the Black South African Miners' Union said yesterday. Mr Cyril Ramaphosa, secretary-general of the National Union of Mineworkers, told a news conference that British miners were being hired to combat a shortage of skilled White miners in South Africa. They were paid up to R3 000 a month, about eight times as much as Black miners, he said. "We are concerned that members of the British National Union of Mineworkers, a union we support, should come to South Africa and take jobs away from our workers," Mr Ramaphosa said. His union had recently urged the British Trade Union Congress to discourage British miners from signing up for jobs in South Africa. Mr Ramaphosa and four other union officials are in Sweden for a 10-day visit at the invitation of the Swedish Mineworkers' Union. [Text] [Johannesburg THE CITIZEN in English 22 Feb 85 p 2]

DU PLESSIS ON CUTS--House of Assembly.--The Government would eventually be forced to cut some of its services entirely and find alternate financing for others, the Minister of Finance, Mr Barend du Plessis, said yesterday. Replying to the debate on the Third Reading of the Mini-Budget, he said it was no longer possible for the Government to limit expenditure cuts on sensitive services such as hospitals and pensions, or on portfolios such as defence. "Some services will have to be cut and some will even have to be dropped entirely," Mr Du Plessis said. Intensive attention was being given to the possibility that the State would have to relieve itself of its responsibility for some services. "If they are important enough, other financing than that of the State will be found," Mr Du Plessis said. [Text] [Johannesburg THE CITIZEN in English 22 Feb 85 p 4]

DU PLESSIS ON FARMERS' SUBSIDIES—House of Assembly.—Farmers could not be subsidised at the expense of the city dweller, the Minister of Finance, Mr Barend du Plessis, said yesterday. Replying to the debate on the Third Reading of the Mini-Budget, he said the Government was intensively seeking the right solution to the financial problems of the country's farmers. The relevant ministers were in constant touch with agricultural unions but it had to be realised that every rand paid in subsidies to farmers had to be obtained in tax from someone else. "We can't use the taxpayer's money as a subsidy for the farmer. There is also a limit to how much the city-dweller can be taxes," Mr Du Plessis said. [Text] [Johannesburg THE CITIZEN in English 22 Feb 85 p 4]

TRADE UNION LEADER HELD--Police yesterday detained a trade unionist and said he was the eighth person arrested this week who is to appear in a high treason trial in March. The spokesman said police arrested Mr Thomazile Gqweta, who is a leader of the South African Allied Workers' Union. Three other members of the same union and four United Democratic Front leaders were arrested during dawn raids earlier this week. The SAAWU members are Mr Isaac Ngcobo, Mr

Sisa Njikelane and Mr Sam Kikine, a former Section 28 prisoner who was given his freedom with 14 other detainees on December 10 last year. In the day-long swoop on anti-apartheid organisations this week, police also arrested UDF leaders Mrs Albertina Sisulu, Professor Ismail Mohamed, Mr Cassim Saloojee and the Rev Frank Chikane. Police said the eight arrested by yesterday would appear in a Durban court on March 29 with eight other UDF and Natal Indian Congress leaders, who were arrested late last year and are in jail. [Text] [Johannesburg THE CITIZEN in English 23 Feb 85 p 2]

RECORD SEASON FOR WOOL FARMERS--While thousands of other South African farmers are facing ongoing problems because of the marathon drought, wool farmers are heading for one of their best seasons ever. According to Mr Pieter van Rooyen, chairman of the Wool Board, all pointers are that the wool farmers are heading for a record level of more than R400-million this year compared with last year's R292-million. He said that the average price of woll to date this season had been 45 percent higher than that of the previous season--and this meant that the total clip value could increase by about R120-million. Because of the favourable conditions so far this season the board had increased its advance by 22 percent on average last year. This had resulted in an additional R55-million to be paid out to farmers as increased "voorskot" (advance) payments. More than half this amount had already been paid out in the past week to producers who had delivered wool before December last year. The rest was being paid out as increased "voorskot" payments, coming into effect from January 8. However, the strengthening of the rand by 3 percent against the US dollar last week has resulted in a 3,3 percent drop in wool prices. [Text] [Johannesburg THE CITIZEN in English 14 Feb 85 p 12]

SWEDISH BAN ON LOANS--Stockholm. -- The Swedish Parliament passed a law yesterday tightening the country'- already stringent rules limiting investment by Swedish companies in South Africa. The legislation, which takes effect in early April, forbids the granting of loans to South Africa and bars Swedish companies from leasing plant, equipment and vehicles in the country. It was passed by an overwhelming majority of the 349-seat chamber. A government order to come into force simultaneously forbids the sale of vehicles and computer equipment to the South African Police and armed forces. Sweden already bans arms sales to South Africa. The Foreign Trade Minister, Mr Mats Hellstroem, said in parliament there were "important international signals" that pressure was being stepped up on South Africa to end its papartheid policies. He cited initiatives in the United States, Norway and the Netherlands to introduce similar legislation. The new law extends one passed in 1979 banning any new direct Swedish investment in South West Africa, but still allows exemptions for investment necessary to maintain existing production capacity. [Text] [Johannesburg THE CITIZEN in English 21 Feb 85 p 2]

COURT TOLD OF ARMED ATTACK--Cape Town.--Night attacks, abductions and destruction of possessions and homes were among allegations in evidence at the trial of KTC swuatter-leader Mr Oliver Memani and 37 co-accused in the Wynberg Regional Court. They have all pleaded not guilty on three charges of public violence and one of incitement to murder. A warrant of arrest has been issued for Mr Gideon Green, who failed to appear. A State witness, Mr David Kotyi, said that last year he was chairman of a sub-committee responsible to Mr Memani, chairman of the KTC resident's committee. As treasurer he collected money for legal expenses. In April Mr Memani ordered R65 to be collected from

every person who came from Old Crossroads to KTC. The committee objected and Mr Memani appointed two men to collect the money. Mr Kotyi said about 50 armed people attacked his and other houses on September 4 last year, damaging shacks and possessions. On November 2 at group of about 200 attacked his and other homes. He laid a charge at the Guguletu police station and returned with the police to release people being "detained" at Mr Memani's house. [Text] [Johannesburg THE CITIZEN in English 20 Feb 85 p 10]

PRETORIA PRAISED FOR CIVIL DEFENCE--Pretoria's civil defence organisation has been adjudged the best in the country--and it has become the first city to gain an A grading for civil defense planning. The Chief Officer, Civil Defence of Pretoria, Mr Mynhardt Beukes, said yesterday it was the second time within months that the city's civil defence organisation had distinguished itself. The unit was recently named civil defence organisation of the year after Pretoria had taken part in a competition organised in Bloemfontein. An official letter from the Chief of the Army, Lieutenant-General Jannie Geldenhuys, has congratulated Pretoria on achieving the grading--and expresses the hope that the organisation will maintain this level of preparedness. [Text] [Johannesburg THE CITIZEN in English 14 Feb 85 p 12]

RETRENCHMENTS IN SUGAR INDUSTRY--Pietermaritzburg.--Retrenchment has hit the second largest suppliers of sugar, C G Smith Sugar, who announced this week that 186 employees at its Pongola mill will be made redundant at the end of this month. Personnel director Mr Barrier Horlock attributed the retrenchments to a change in the system of cane transport. "The change has led to the closure of our narrow-gauge rail system as the growers wish to transport their own cane by road," he said. He denied the retrenchments had anything to do with the economic recession. The change in transport arrangements follows recommendations by the Rorich committee. Five skilled workers, 24 semi-skilled and 157 unskilled are to be retrenched. [Text] [Johannesburg THE CITIZEN in English 15 Feb 85 p 5]

ILLEGAL STRIKE ENDS AFTER ULTIMATUM -- Workers who went on illegal strike at the Duvha open-cast colliery near Witbank yesterday had returned to work, Rand Mines said in a statement released in Johannesburg. National Union of Mineworkers' officials had told management the stoppage was in sympathy with a strike at the nearby Reitspruit colliery, according to Mr Allen Cook, deputy head of the coal division of Rand Mines. "Less than 50 of the morning shift of 550 turned up for work at Duvha this morning, and we told those that stayed away that unless they were back at work before the end of the shift at 2 pm, they would be dismissed," Mr Cook said. He said NUM officials told management workers would return to work only when two NUM shop stewards dismissed at Rietspruit last week had been reinstated and when "agitators" taken into custody at Reitspruit on Sunday night had been released. "The strike was patiently organised by NUM. He added that management had urged workers to return to work and had impressed upon them that the strike-like the one at Rietspruit--was not in their interests. Conditions at Reitspruit were "virtually back to normal" yesterday after management issued an ultimatum to workers to return to work or face dismissal, the statement said. "Some 85 percent of the Black work force of approximatley 1 000 abandoned the strike. By noon yesterday, 86 workers who chose not to go Rand Mines would

take "Firm action" if there were similar stoppages in future. [Text] [Johannesburg THE CITIZEN in English 20 Feb 85 p 10]

PFP LEADER ON URBAN BLACKS--The political hopes of South Africa'ss urban Blacks would never be satisfied if plans for them were in any way linked to the Black homelands, Mr Sam Moss (PFP, Parktown) said in the debate. Mr Moss said that there appeared to be a grain of hope for urban Blacks in the system of regional service councils -- as opposed to the system of urban Black councils, which had largely failed. In any system of political determination for urban Blacks, it was vital to recognise the permanence of those Black there-many of them third and fourth generation in urban areas and completely unfamiliar with any so-called "homeland". "Peace in our metropolitan areas will depend largely on the success of the regional services councils. But care must be taken to get on to them the people in the Black communities who really want to serve--and they must be given the powers to achieve--so that they are not regarded as government stooges, as the urban councils were," said Mr Moss. "If the new bodies do not produce the goods, do not show an upliftment in life, then the people serving on them will be at risk--just as we have seen the Urban Bantu Council members at risk in the recent unrest. "If the new Councils are expected to blindly carry out Government policy-such as influx control--they would be doomed to failure," he said. [Text] [Johannesburg THE CITIZEN in English 20 Feb 85 p 8]

LENNINGS EXPORTS—Lennings Manganese, a Lennings Group company, has increased its exports by 163 percent. "The company's exports have risen by 163 percent in the value during the last two financial years and currently account for 60 percent of total sales value," said Mr D Hume, general manager of Lennings Manganese. The company's major export markets are the USA, Canada, the Far East, Europe, United Kingdom and Chile. Operating in the highly competitive export market has meant that Lennings Manganese has had to provide both outstanding service and high quality products. Evidence of this is that the company holds the SABS mark, which was awarded in January 1979. The requirements of other international standards such as DIN, BS and ASTM are also met. The company specialises in the production of cone crusher bowl liners and mantles with a maximum diameter of 2,13 metres and an individual mass of 7 mt, and jaw crusher liners up to 3,3 mt. [Text] [Johannesburg MINING WEEK in English 16 Jan 85 p 9]

SULZER'S ENGINEERING--Sulzer's engineering division is to design and manage construction of a surface refrigeration plant at Anglo's Erfdeel gold mine, near Welkom. Sulzer concrete cooling towers will form a major part of the plant. [Text] [Johannesburg RAND DAILY MAIL in English 5 Feb 85 p 7]

ANC CONDEMNS RAIDS—Dar es Salaam—The African National Congress [ANC] of South Africa has strongly condemned the latest campaign of intimidation and terror launched by the racist regime against antiapartheid opponents. It says Pretoria's desperation will only serve to fuel the offensive for the destruction of the apartheid regime. An ANC statement issued in Dar es Salaam today was commenting on yesterday's raids and detention of United Democratic Front leaders on charges of treason. The statement called on the people of South Africa to

embark on determined action for the immediate and unconditional release of all political prisoners and detainees. In an appeal to the international community to assist the oppressed in South Africa, the ANC said the situation in the region demanded the stepping up of the struggle for the total isolation of the apartheid regime. [Text] [Dar es Salaam External Service in English 1600 GMT 20 Feb 85]

TRADE WITH JAPANESE FIRM--A giant Japanese computer and telecommunications firm has announced that it is to deal openly with South Africa from now on after dealing for years through local manufacturers and importers. Our economics staff reports that while Japan and South Africa have maintained trade links, dealings have been at arms length for various reasons. [Begin Mr Yasushi Tajuri of Fujitsu Company video] There has been no major change in the past few years or more. There has been no restriction or regulation in terms of the trade between the countries except some military stuff, but Japan has also a little trade with other African countries and (?try) talk about computer communication equipment. We have had a lot of relationships with other African countries and again we have been, why Fujitsu has been jeopardized in their trade with this country. Our products, such as microchips or diskdrives or some printers and even some computers have been imported in this country, into this country, not by the Fujitsu name but by other company's name and we have been reasonably satisfied with that business. [End video] [Johannesburg Television Service in English 1800 GMT 19 Feb 85]

REASONS BEHIND CLOSER COLLABORATION WITH RSA ANALYZED

Johannesburg RAND DAILY MAIL in English 23 Jan 85 p 7

/Article by Patrick Laurence/

/Text/ An alliance between the Swazi ruling class and South African capitalism is the key factor behind Swaziland's hostility to the African National Congress and its "open collaboration" with Pretoria, according to Mr John Daniel of the University of Swaziland.

The alliance, in turn, rests on the Tibiyo Taka Ngwane Fund, Swaziland's powerful investment and development corporation, Mr Daniel contends.

Established by King Sobhuza on revenue derived from mineral rights paid to the Swazi nation by foreign mining companies, Tibiyo has grown to become the "wealthiest and most energetic locally-controlled force in the domestic economy."

Its equity in foreign companies operating in Swaziland, particularly in the agro-industry, has swelled its coffers and brought it into a close alliance with international capital, which in the Swazi context increasingly means South African capital.

Tibiyo is controlled by dominant elements of the Swazi aristocracy, in conjunction with a "few loyal commoner allies" and their financial well being depends largely on the prosperity of foreign and South African capital in Swaziland.

"It is this above all that explains the present hostility to the ANC and the now open collaboration with South Africa," Mr Daniel says in an article in South African Review."

In his view the overlapping commercial interests of the Swazi ruling class and South Africa capital are more important in forging close ties between Mbabane and Pretoria than either the "land deal" or the deeply conservative nature of Swazi society and its concommitant fear of the radical forces represented by the ANC.

In terms of the now stalled land deal, Pretoria offered to help restore the Greater Swaziland of the 19th century by transferring South Africa's border territories of KaNgwane and Ingwavuma to Swaziland.

Land deal negotiations took place in 1981-82. At the time it was speculated that they were important in persuading Swaziland to sign a secret non-aggression pact with South Africa and to adopt an increasingly hostile attitude toward the ANC.

But, Mr Daniel avers, Swaziland's desire to regain its "alienated territory" cannot on its own explain its tough stand against the ANC.

"The 'carrot' of these 'lost' lands has been a card which South Africa has only served to reinforce deeper tendencies in the Swazi state's attitude to the ANC."

Mr Daniel contrasts Lesotho's ideologically hostile attitude to South Africa with Swaziland's generally accommodation attitude.

Lesotho's more stridently critical position is paradoxical in the sense that it is more dependent economically on South Africa than Swaziland and therefore more vulnerable to South African pressure.

One reason for Lesotho's vociferous anti-apartheid stance is the quest by its government for international and internal legitimacy, a quest which has its roots in the seizure of power by Prime Minister Leabua Jonathan after the aborted 1970 general election.

"Illegitimate since its coup in 1970, the Jonathan government has tried desperately to acquire legitimacy in the 1970's by assuming a more populist position, particularly on the question of South Africa and apartheid," Mr Daniel writes.

Another factor, however, is the absence of a Lesotho variant of the Tibiyo Fund and hence of a coalition between the Lesotho ruling class and South Africa capital.

"There (has not) been a tendency on the part of the Basotho state to enter into joint ventures with capital," Mr Daniel says.

"South African Review Two" (Ravan Press)

HEALTH MINISTER CITES STUDENTS' STRIKE, U.S. AID

MB220700 Mbabane Television Service in Siswati 1815 GMT 21 Feb 85

[Text] The minister of health, Prince Phiwokwakhe, yesterday told the students at the Institute of Health Sciences that it is rather sad when the government struggles so hard to obtain funds for their education and books, and students reward it with strikes. The minister was speaking during the presentation ceremony of books and audio visual equipment donated by the Government of the United States. This is what the minister said:

[Begin recording] This donation is from the United States. The purpose of this gift is to educate our children in this country on health matters. Therefore, these items are not here for relegation to the shelves. They are meant to be used by the students to impart knowledge that will produce a healthy Swazi nation. Unfortunately, during a presentation of this nature, only the teachers are represented. It would be preferable that the students be represented as well so that we can advise them. We could then make it known to them that these donations are for their education and should be utilized fully, and that time should not be lost in strike action.

It is sad that the government has to work so hard to get aid for their education and then have them go on unnecessary strikes. It is unfortunate that they allow themselves to be swayed by the opinions of others, as this disrupts their education. The donors get discouraged when they hear that a school has been closed down. The education they get is not [words indistinct] but for the following generations as well. The education they get is for the benefit of the entire nation. Therefore, it is important to go out of its way to get all these donations. Students must refrain from taking unnecessary strike action.

I would like to commend the students of this institute for not joining the recent strikes, despite the fact that other institutions were on strike. Your cooperation was greatly appreciated. It was unfortunate that the newspapers reported that you had joined the strike, when you had not done so. I was really happy. What I am saying is use this equipment. Do not indulge in petty theft, or claim ownership of it. No, just use it and leave it so that the next person that comes along tomorrow can also use it. [end recording]

cso: 3498/4

PRIME, FINANCE MINISTERS COMMENT ON CUSTOMS FRAUD

MB211659 Mbabane Domestic Service in English 1600 GMT 21 Feb 85

[Text] The prime minister, Prince Bhekimpi, says only a few companies accused of fraud in the customs union are in Swaziland and that the majority are in South Africa. Speaking at the House of Assembly today, Prince Bhekimpi appealed to the members of parliament to exercise some patience as the matter in connection with the customs union fraud affected all members of the union. He said he hoped that the culprits will be brought to court soon, although Swaziland is still waiting for South Africa, Botswana, and Lesotho to make their proposals, saying the man commissioned to carry out investigations in those countries has already completed his job. He revealed that Swaziland first heard of irregularities after South Africa had indicated so and that every movement undertaken by the kingdom with regard to findings of the alleged irregularities was done in cooperation with the three other members of the customs union.

On answering as to what action was being taken by the customs union partners to ensure that cases of fraud would not take place in future, the minister for finance, Mr Sibusiso Barnabas Dlamini, said the procedure for the controll of goods removed under customs bond is currently reviewed by the customs' technical liaison committee of the customs union. He pointed out that the entire system was being revised in order to ensure the risk of the recurrence of fraud was minimized.

Mr Dlamini said from the very onset Swazi police started working closely with relevant authorities in Swaziland and South Africa. On the loss of 7,000 emalangeni, some of the money the country had gained through sales tax, the finance minister said protagonists of such theft were public servants, stating that their misdeed was discovered immediately. He further disclosed that two public servants accused of the theft had already appeared in the Manzini court.

Mr Dlamini then denied as untrue that there were government employees who occupied government quarters without rent fees. On the subject of investment incentives, in that temporary residence permits valid for 5 years period might discourage the employment of locals, Mr Dlamini said permits would continue being granted with due care and discernment but only in those cases where there were no suitable qualified locals.

CSo: 3400/624

BRIEFS

RETURN OF ANC MEMBERS DENIED—The Prime Minister, Prince Bhekimpi, has denied allegations by the African National Congress that Swaziland had returned members of the organisation to South Africa. He said Swaziland in her capacity as the signatory of international law governing refugees would not return members of the African National Congress to the country of their birth as alleged by ANC officials in Lusaka, Zambia. Answering questions posed by the House of Assembly yesterday Prince Bhekimpi stated that all refugees in the kingdom were not allowed to use the country as a springboard for launching attacks on the neighbouring states. He said those refugees who break the law and go about wielding guns are dealt with by the law. [Text] [Mbabane THE SWAZI NEWS in English 23 Feb 85 p 20]

cso: 3400/659

CHINESE AWARDED CONTRACT TO BUILD PARTY HEADQUARTERS

Lusaka ZAMBIA DAILY MAIL in English 9 Feb 85 p 5

[Text]

PRIME Minister, Nalumino Mundia yesterday told Parliament that Zambia picked on Chinese contractors to build the K40 million Party headquarters purely on economic lines.

Winding up debate on estimates of expenditure for Cabinet Office, Mr Mundia said it was not the wish of the Party and its government to be wasteful by inviting foreign contractors instead of local ones.

He explained that due consideration was first given to local companies but none of them could build the complex in less than 20 years.

In this regard, the Party approached the Chinese who made the design of the building and later gave a leeway to the nation to engage any contractor of its own choice but it was found economical to let them construct the building

The Prime Minister pointed out that the Chinese experts indicated that they could complete construction work in five years time or even less than that and considering the escalating costs of materials, it was found fitting to engage them to undertake the pro-

ject.

"Chinese experts were not merely picked. There was consideration given to local companies but none of the local companies could reach the required standards," Mr Mundia said.

Apart from that fact, Mr Mundia said the Chinese have not been letdown on all major projects they have undertaken in Zambia.

He pointed out that the Chinese built the Tazara which many people thought was a worthless venture, constructed the Lusaka/-Mongu and the Serenje Samfya roads.

Earlier, Chairman of the Appointments and Disciplinary Committee, Mr Elijah Mudenda assured the nation that donations towards the construction of the new Party headquarters are in safe hands.

Contributing to the estimates of expenditure, Chief Mapanza for Mbabala asked the Office of the Prime Minister to tell the House when the much talked about Who owns what Register' which was compled by a top executive in the Industrial Participatory Democracy would be released, for members of the public.

cso: 3400/672

KAUNDA EXPLAINS INCREASED SOUTH AFRICA TRADE

Lusaka ZAMBIA DAILY MAIL in English 5 Feb 85 p 1

[Text]

TRADE between South Africa and Zambia is increasing but this is not out of the latter's choice, President Kaunda has said in the interview with a South African journalist.

Dr Kaunda said that trade between the two countries was increasing because of historical and geographical factors.

The President explained that due to these factors Zambia found herself trading with South Africa sometimes without intending to do so as Zambia's traditional Western partners had outposts in South Africa.

"Even when we want to buy from them (Western partners) they would refer us to South Africa," Dr Kaunda told Barry Streek who had earlier said he had seen a lot of South African goods in Lusaka's shops.

Zambia being a land-locked country incurring high transportation costs has a policy of buying from the cheapest source and that source happens to be South Africa and this "is certainly against our political desire."

Zambia had taken steps to reduce trade with South Africa shortly after attaining independence but such measures were frustrated by the declaration of independence by rebels in then Rhodesia.

Dr Kaunda readily admitted that South Africa was a regional economic power but made it clear that Zambia would never support that country's participating in regional economic groupings like the Southern African Development Coordination Conference (SADCC) as long as apartheid survived.

Independent southern African countries recognise South Africa as an independent state but there was no way these states could willingly cooperate with South Africa.

Asked if he would welcome South African investment in Zambia, Dr Kaunda recalled that involvement of South African private capital in Zambia's economy preceded the attainment of independence. — ZANA.

CZECHOSLOVAKIA PROPOSES ESTABLISHMENT OF BARTER TRADE

Lusaka TIMES OF ZAMBIA in English 9 Feb 85 p 5

[Text]

CZECHOSLOVAKIA is negotiating for possibilities to establish a barter trade system with Zambia to boost trade between the two countries.

Vice-president of the chamber of commerce and industry for Czechoslovakia Dr Pomein Matuska who is leading a powerful trade delegation, said this when he met chairman of the Zambia Industrial and Commercial Association (Zincom) Mr Vernon Mwaanga in Lusaka yesterday.

Dr Matuska said Czechoslovakia was at present unable to export goods to African countries because of the foreign exchange problems they were facing.

He said it was important for Zambia and Czechoslovakia to introduce the barter trade system as no foreign exchange would be involved.

Dr Matuska said the purpose of his delegation's trip to Africa was to promote the mutual understanding which already exists and increase trade links between Czechoslovakia African states.

He was confident that members of his delegation would learn new ideas during the exchange of views. The delegation has already been to Zimbabwe.

Mr Mwaanga told the team that Zambia like any other developing country was going through econo-

mic problems.

He said the ailing economy had made it possible for Zambia to diversify into agriculture to produce export oriented goods to earn foreign exchange.

Mr Mwaanga said Zincom through its members was geared to respond to the recently announced Economic Crusade 1985.

3400/671 CSO:

MINES MAKE STRUCTURAL, STAFFING CHANGES

Lusaka ZAMBIA DAILY MAIL in English 2 Feb 85 p 5

[Text]

ZAMBIA Consolidated Copper Mines Limited (ZCCM), has announced major structural changes involving some of its operating divisions.

its operating divisions.

A ZCCM spokesman said yesterday that the changes are in the interest of operational efficiency and rationalisation. He said the two mines — Chibuluma and Chambishi — which presently form Kalulushi have been separated.

Chibuluma mine will now be managed by Nkana Division, while Chambishi mine will be administered by Nchanga Division, except for the Cobalt and Acid plants, which will fall under the management of Nkana Division.

"This arrangement will bring the management of both cobalt plants and acid plants in the company under one division," he said.

He said the management of Ndola Copper Refinery would in the same manner be transferred from Mufulira Division to Luanshya Division.

"This move means that the number of operating divisions has been reduced from seven to six, namely; Nchanga, Mufulira, Nkana, Luanshya, Konkola and Kabwe," the spokesman said.

He said the changes will be effected from April 1, 1985.

He explained that the structural changes would not affect the employment and

welfare of all categories of employees at the divisions concerned.

The spokesman further announced that Mr David Littleford, who has been acting general manager at Kabwe Division is now confirmed as general manager of that division. The division's general manager, Mr David Shutt has been transferred to the Copperbelt to reinforce the metallurgical consulting team.

The spokesman said David Chilcott, manager mining at Mufulira Division has been promoted to consultant and transferred to the company's Copperbelt mining consulting team.

He said his place has been filled by Mr Jan: Jackson, currently mine superintendent at the same division.

Other staff changes announced are: Mr Chembe Phiri, manager administration at Luanshya Division is transferred to Mufulita Division in the same capacity. In his place comes Mr Nelson Simukonda from Konkola Division.

Mr Geoffrey Sikazwe, who has been acting manager administration at Mufulira Division, goes to Konkola Division on promotion as manager administration.

The appointments and transfers are with effect from February 1, 1985, the spokesman said.

cso: 3400/671

ARMY TO REBUILD FLOOD-DAMAGED BRIDGES

Lusaka ZAMBIA DAILY MAIL in English 11 Feb 85 p 1

[Text]

GOVERNMENT will soon deploy Defence Force personnel to reconstruct bridges which have been swept away by torrential rains in Luangwa district, Lusaka Province Member of the Central Committee Mr Fines Bulawayo said yesterday.

Mr Bulawayo said the floods in the district were so serious that the Government was now considering reconstructing the old Feira road which was

on the drier part of the district.

Mr Bulawayo said however, that although plans are underway to reconstruct the old Feira road this will only be done after ensuring that all the land mines which may have been planted by rebel Rhodesian forces during the bush war with Zimbabwean freedom fighters are removed.

Mr Bulawayo who recently visited the district which is now completely cut off from the rest of the country said Luangwa Secondary School and Katondwe Primary School students are threatened with starvation as helicopters can no longer land in the area to deliver food supplies while vehicles cannot get through because roads are still impassable.

"Luangwa Secondary School has only food supplies to last them three weeks while Katondwe has completely run out of food and is getting their supplies from the Secondary School. I am afraid the situation is getting more serious but we are doing everything possible to assist," he said.

Because of the floods which have so far devastated fields and houses in the district, Mr Bulawayo said only ten Grade Eight students out of 40 have arrived at Katondwe and parents are desparate to get their children to school but do not know what to do.

SOVIETS DONATE VACCINES AGAINST CHILDHOOD DISEASES

Lusaka ZAMBIA DAILY MAIL in English 8 Feb 85 p 3

[Text] THE Zambia Red Cross Society (ZRC) has received 30,000 doses of vaccines from the Soviet government all valued at about K3,000.

The vaccines which were presented to the ZRC by the Soviet Embassy First Secretary, Mr Arkadi Oreshenko are meant to support the Primary Health Care programme by the society.

The drugs will be used to immunise children against various preventable diseases such as polio in order to reduce the infant mortality rate in the country.

Speaking soon after receiving the drugs, chairman of the ZRC Dr Masheke Nalumango, said the high infant mortality in the country and the Third World in general, was causing great concern.

He said what was most wo-

rrying was the fact that the deaths were being caused by diseases which could be easily prevented.

"It is in this light that I see your donation as a timely one because it has come at a time when the ZRC in conjunction with the Ministry of Health has launched the Primary Health Care programme aimed at creating public awareness on health matters," he said.

He said the ZRC had three areas of action namely disaster, preparedness and prevention, primary health care and safety services.

"These drugs will therefore, be fully utilised in our Primary Health Care programme and they will go a long way in our efforts to prevent a number of diseases causing great suffering to children," Dr Nalumango said.

In reply, Mr Oreshenko told Dr Nalumango that Zambia and the Soviet Union were enjoying a lot of cooperation in various fields which needed to be strengthened even further.

He said the donation of the vaccines which was initiated by the Red Cross Society in that country was a testimony of the good and warm relationship existing between organisations in the two countries.

He said the drugs had been donated to the ZRC in order to supplement efforts the society was making in its bid to alleviate child suffering.

IMPROVED POLICE CONDITIONS RECOMMENDED

Lusaka TIMES OF ZAMBIA in English 13 Feb 85 p 1

[Text]

BACK-benchers in Parliament yesterday called for improved conditions of service in the police force to raise officers' morale and performance.

Leading the debate on the estimates of expenditure for Police and Prisons Commission, Bweengwa Member of Parliament Mr Rex Natala called for "peace and security crusade" this year to ensure that the Economic Crusade was not disrupted by crime.

Chinsali MP Mr Boniface Shinga, described conditions of service in the force as "awful" and said it was impossible for officers to work effectively.

"The Government must sacrifice some projects to give incentives to the police," Mr Shinga said adding that such projects would, after all, be a waste

of money without assured

security.

MP for Nchanga Mr Titus Mukupa commended the police for "doing well under horrible conditions. A person doing well under difficult conditions should be given incentives to spur him to greater heights."

Mr John Miyato (Kalabo) noted that while police in rural areas were doing well, those in big towns were "kilometres behind criminals who are becoming more and more sophisticated."

Mr Miyato called for improved communication and crime detection

methods. "The Government should also review the ranking system in the force with a view to creating more posts for junior officers."

Mr Godfrey Simasiku (Chifubu) called on the Government to review the situation on the Copperbelt where he said anarchy was reigning. He called for the formation of a "flying squad" to attend to emergency cases.

"The ministry in charge should also consider offers by residents in Ndola to supplement police effort to combat crime," he sasid. Katete South MP Mr

Katete South MP Mr Joseph Mbewe said he had noted a disparity in performance between today's police force and that of pre-independence days which was "much better".

Meanwhile Home Affairs

Meanwhile Home Affairs Minister Mr Frederick Chomba cut short his ministerial speech on the security situation following points of order from MPs and declared: "I am prepared to resign if I'm found wanting in my duties."

This happened when the minister was replying to contributions from members who alleged that Mr Chomba had implied in his speech that the Government was fearing criminals

and found the task of curb-

ing crime risky.

The points of order came from Mr Mufaya Mumbuna (Nalikwanda), Mr Namushi Namuchana (Liuwa), Mr Wisdom Myula (Nkana), Mr Palakasa Chiwaya (Chilifabombwe), Mr Natala and Mr Albert Limbo (Sinjembela).

Chairman of supply who is Deputy Speaker of the National Assembly Mr Leornard Kombe said he could not make a ruling and gave the minister a chance to explain what he meant.

Mr Chomba stood up and said: "I'm a servant of the people and if I'm found wanting I'm prepared to resign." he said and sat down.

There was a hushed silence in the House but quickly followed by some comments: "He has, resigned."

Earlier, Mr Chomba said efforts to prevent crime in

the country by the police had suffered setbacks because of shortages of manpower and equipment.

He informed the House that most stations operated under strength and the volume of work per officer was far too great.

Prime Minister Mundia said the Government wanted to amend the Constitution so that habitual criminals were denied

legal aid.

"We agree that there is no need for us to provide legal aid to a person who has been charged before as many times as six."

The Government shared the concern of the MPs on the issue of legal aid being extended to cri-

minals.

"It is the view of the Government that the law dealing with this provision should be amended. Criminals commit offences because they know the Government will provide legal aid."

SMUGGLING RESURFACES IN NORTHWEST

Lusaka TIMES OF ZAMBIA in English 2 Feb 85 p 2

[Text]

NORTH-WESTERN Province Member of the Central Committee Mr Maxwell Beyani has expressed concern at the resurgence of smuggling of mealie meal into Zaire.

He said in Solwezi yesterday that smuggling of mealie meal by Zambians and Zaireans had reached alarming proportions and unless Party officials at the border joined in the fight against the scourge the people in the province risked experiencing shortages of the commodity.

Mr Beyani said he had asked Chingola governor Mr Evaristo Mutale to ensure that all vehicles carrying essential goods including mealic meal were registered at the security point at Mushishima to curb smuggling.

Upon reaching Solwezi the vehicles would be registered for delivering the goods and returns made at the end of the month.

"Any businessman who does not register his vehicle in Solwezi after collecting mealie meal from the Copperbelt will have exposed himself of being a smuggler and his truck will be impounded for contravening regulations," Mr Beyani said.

The provincial leadership would consider whether to replace Mobile policemen stationed at the border with Zaire after repeated accusations of corruption by the public and Party officials

officials.

Measures worked out to control smuggling would prove fruitless unless the people joined forces with the Party and security men in the fight.

And illegal currency exchange at Nakonde by Zambians and Tanzanians, is continuing unabated, Northern Province Member of the Central Committee Mr Joseph Mutale has said.

Mr Mutale said smuggling of goods and money by Zambians and people from neighbouring countries was now a perpetual problem.

"Party and Government officials along border areas

have tried hard to reduce this problem but there are people who have become addicted to smuggling making it impossible to end the practice."

It was not possible to stop smuggling in the area. What the Party and immigration officials were doing was to reduce incidences of the practice.

Meanwhile, Mr Mutale said distribution of top dressing fertiliser to farmers had now gathered momentum after a committee formed last month to oversee the exercise mobilised transport for the Northern Cooperative Union.

Problems of shortfalls in supplies especially in remote areas has been solved and all farmers would get enough for their fields.

Lack of transport which had been a major setback in distribution was now a thing of the past, Mr Mutale said.

BRIEFS

PARLIAMENT DISCUSSES INCREASED CRIME--The state must tighten security to prevent criminals from harassing and molesting people, Speaker of the National Assembly Dr Robinson Nabulyato said yesterday. Expressing concern about the rising crime wave, the Speaker said every citizen had the right, as a taxpayer, to urge the State to take measures to protect people against criminals. He was ruling on a point of order by Msanzala MP Mr Clemens Mwanza who expressed grave concern about the numerous cases of armed banditry. The MP was prompted to raise the point of order following an incident in which Ndola MP Mrs Esther Chande was robbed of her vehicle by armed bandits at gunpoint. Mr Mwanza complained that the security situation in the country was fast deteriorating although the leadership portrayed Zambia as a peaceful nation and safe for foreign investment. The Speaker told the House that the most any individual could do was to urge the State to tighten security. He advised MPs to come up with either questions or motions on the matter to find out what government was doing to protect the people against criminals because the issue could not be effectively dealt with by raising points of order. [Excerpt] [Lusaka ZAMBIA DAILY MAIL in English 8 Feb 85 p 1]

SWEDEN CANCELS LOANS—Stockholm, Wednesday. Sweden today announced the scrapping of K12 million worth of loans to Zambia. The announcement was made by Swedish Prime Minister Olof Palme at a press conference held here by President Kaunda at his office. Details of the deal were not immediately available as Mr Palme did not go into details in his announcement. But President Kaunda told the Press conference that the announcement was welcome news which came as a surprise as he had heard of it only this morning. In addition to granting of loans Sweden gives Zambia K64 million aid annually for agriculture, health, education and manpower training. President Kaunda said his two-day state visit to Sweden had resulted in the strengthening of bilateral relations between the two countries. [Excerpt] [Lusaka TIMES OF ZAMBIA in English 14 Feb 85 p 1]

MINISTER PLACED ON LEAVE--President Kaunda yesterday named Health Minister Mr Mark Tambatamba as the minister reported to have been swindled out of K60,000 by conmen who allegedly sold him fake diamonds in Lusaka last month. The President told a packed State House Press conference that he had sent Mr Tambatamba on indefinite leave to enable security forces to probe the matter thoroughly. He told the Press conference attended by Party Secretary-General Mulemba, Prime Minister Mundia, Secretary of State for Defence and Security Zulu and many top Party and Government leaders that when the matter came to light in the Times of Zambia, the minister told him that he wished to go on leave pending police investigations. [Excerpt] [Lusaka TIMES OF ZAMBIA in English 9 Feb 85 p 1]

ZIMBABWE

BRIEFS

BRITISH AID AND ENVOY--Zimbabwe and Britain today signed a \$940,000 agreement which will enable the government to buy 24 water pumps for rural road construc-The pumps, which will be assembled in the country, will be given to the District Development Fund, DDF. The deputy minister of finance, economic planning, and development, Comrade (Morton Malianga), who signed on behalf of the government, said the 24 light construction units being used by the DDF have proved to be inadequate because the fund is being faced with a formidable work program. He said the program has been disrupted by the recent rains, which washed away many roads and bridges in the communal lands. The acting British high commissioner, Mr (Roger Martins), said Zimbabwe's first peasant farming community has become the success story of Africa, and Britain is delighted to be associated with other sectors, like the improvement of roads, which contribute to agricultural development. In the meantime, the new British high commissioner to Zimbabwe, Mr Ramsey Melhuish, arrived in Harare on Wednesday to take up his post following his appointment last month. [Text] [Harare Domestic Service in English 1115 GMT 18 Feb 85 MB]

CSO: 3400/623

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